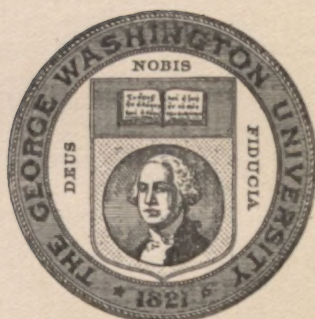


VOLUME XI

NUMBER I

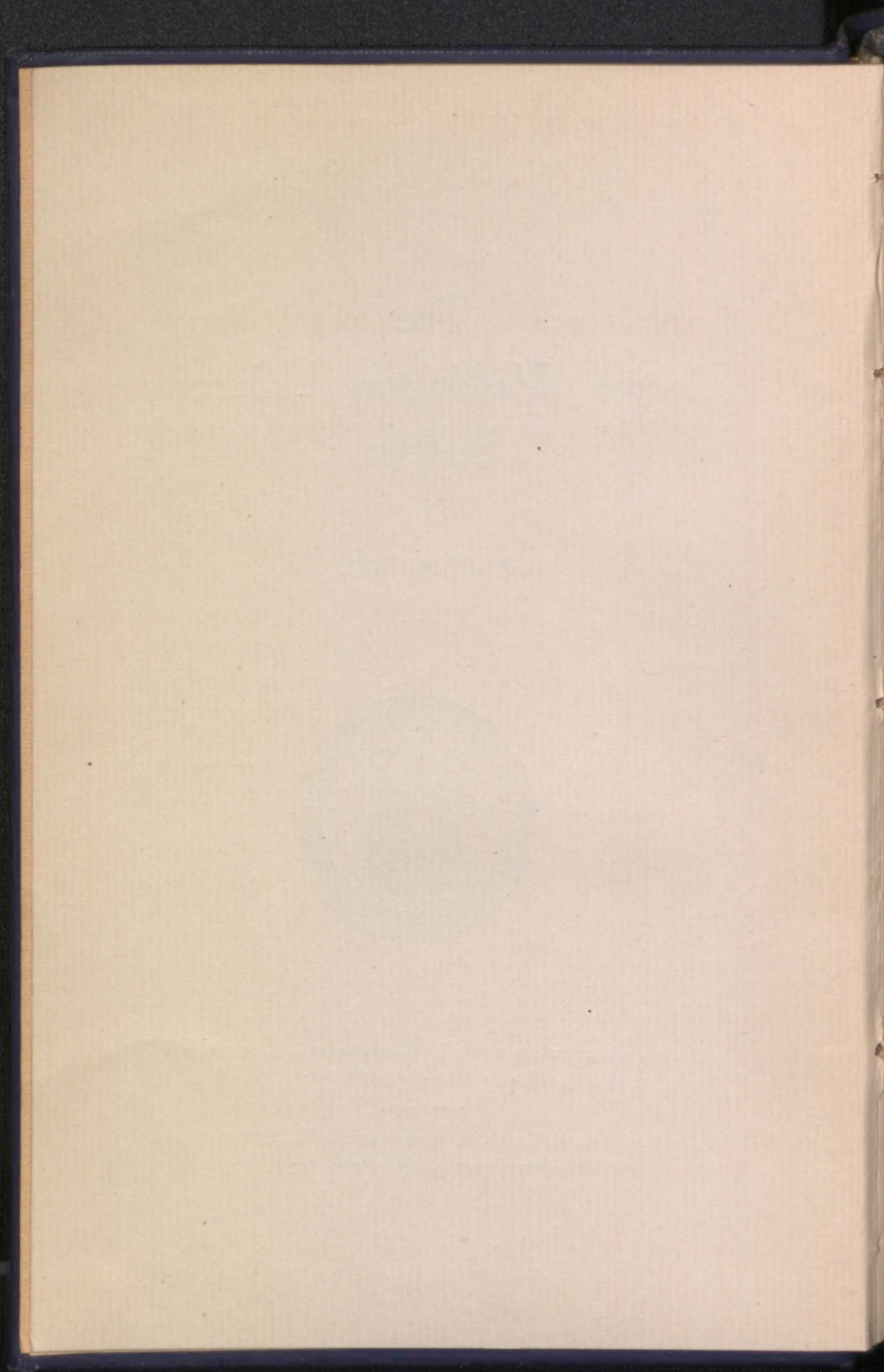
The George Washington University Bulletin

MARCH, 1912.



PUBLISHED BY THE UNIVERSITY AT WASHINGTON, D. C., IN MARCH,
JUNE, OCTOBER AND DECEMBER.

Entered October 6th, 1904, at Washington, D. C., as Second-class
matter under Act of Congress of July 16th, 1894.



THE GEORGE WASHINGTON UNIVERSITY

THE PRESIDENT'S REPORT

JANUARY 10, 1912.

TO THE CHAIRMAN OF THE

BOARD OF TRUSTEES,

GEORGE WASHINGTON UNIVERSITY.

SIR:

On November 30, 1910, I was elected President of the University and continued the duties assumed by me upon election as acting President.

The prescribed courses and Departments of the University were carried on during the academic year which ended June 7, 1911, quietly and efficiently, there being a maximum registration during the year of 1,277 students.

At the Midwinter Convocation, held on the 22d of February, addresses were made by the Hon. Charles Francis Adams and the Hon. F. W. Hackett. The following degrees were conferred:

The College of Political Sciences:

Bachelor of Arts 1

Teachers College:

Teachers' Diploma 1

Department of Medicine:

Doctor of Medicine 1

Department of Law:

Bachelor of Laws 4

Bachelor of Law 1

Master of Laws 1

Faculty of Graduate Studies:

Civil Engineer 1

Master of Arts 1

At a meeting of the Board of Trustees, held on March 21, 1911, the action of the Board of Trustees of the College of Pharmacy in the following respects was duly confirmed: That beginning with the session of 1912-13 the entrance requirements for admission to the College of Pharmacy be increased to two years in high school or its equivalent and at the session of 1916-17 four years in high school or its equivalent.

On March 31, a legacy was received from the administrators of Lambert Tree, Esq., of Chicago, of \$9,715.00, being the amount bequeathed (\$10,000.00) less the inheritance tax of \$285.00. This legacy was in memory of Laura M. Tree, the mother of Mr. Lambert L. Tree, for the purpose of establishing from the income one or more free beds in the University Hospital. The amount has been duly invested for the purpose named.

On April 11, an endowment was begun for the Congressional Professorship of English by the sale of a Congressional lot, numbered five in Square 83 of the City Plan. This was in accordance with the terms of the donation by Congress.

At the end of the last academic year the resignations of Dean Lorenzen, of the Department of Law, and of Professor James Brown Scott, of International Law, were received and, with much regret, accepted. Dr. Charles Noble Gregory, Dean of the Law Department of the State University of Iowa, was elected to succeed Dean Lorenzen and the oversight and lectureship in international law and diplomacy was assumed by the President of the University.

At the Commencement of the University, held June 7, 1911, an address was made by Dr. Elmer Ellsworth Brown, Chancellor-elect of New York University, and the following degrees were conferred:

College of Arts and Sciences:

Bachelor of Arts	11
Bachelor of Science	3
Bachelor of Science in Chemistry.....	1

College of Engineering and Mechanic Arts:

Bachelor of Science in Architecture.....	2
Bachelor of Science in Civil Engineering.....	3
Bachelor of Science in Electrical Engineering.....	2
Bachelor of Science in Mechanical Engineering....	4

College of Political Sciences:

Bachelor of Arts	6
Master of Diplomacy	1

Teachers College:

Bachelor of Arts and Teachers' Diploma.....	7
---	---

Department of Law:	
Bachelor of Laws	26
Bachelor of Law	17
Master of Patent Law	20
Department of Medicine:	
Doctor of Medicine	16
Department of Dentistry:	
Doctor of Dental Surgery	6
National College of Pharmacy:	
Doctor of Pharmacy	11
College of Veterinary Medicine:	
Doctor of Veterinary Medicine.....	25
School of Graduate Studies:	
Doctor of Civil Law	1
Civil Engineer	1
Master of Science	1
Master of Arts and Masters Diploma in Education..	1
Master of Arts	1
Doctor of Philosophy	5

The floating debt has been reduced during the past year by payments on subscriptions, donations, and transfers from current receipts by the amount of \$19,734.33. At the present date the old floating debt balance is \$3,893.80.*

In addition there is due the Building, Site, and Enlargement Fund and the Alumni Hall Fund, the following amount which has not been released to the University by the donors, \$7,393.98.

The impairment of the various endowment funds reported by the Attorney-General which is now covered by a deed of trust upon the property occupied by the Medical School and Hospital Buildings amounts to \$369,405.98.

NEEDS OF THE UNIVERSITY.

The urgent need of the University now is the establishment of the Department of Arts and Sciences in a building owned or controlled by the University under long lease. The concentration of this Department will not only improve greatly the economy in expenditures and administration and be of great convenience to those in attendance upon this Department (the students registered therein now consisting of more than one-half of the student body), but also be a tangible evidence of

* This debt has, since the above was written, been extinguished.

the stability and permanence of the University. The location should, if possible, be in the vicinity of the chemical laboratories, now established upon the property of the University on H Street between 13th and 14th Streets. I urge upon the Board of Trustees action in this direction which will be, when done, the greatest stride in the rehabilitation of the University.

COLLEGE OF ARTS AND SCIENCES.

It is satisfactory to know that notwithstanding the disadvantages in which it has been placed from the want of a permanent building and from circumstances due to our want of means that in the College of Arts and Sciences the registration this year is larger than it has ever been before in the history of the College and that the character and quality of students are such as to prove an incentive in every classroom.

This College is the heart of the University and now that it has taken also the leading part in registration and numbers it demands the most attention from the trustees and community. That it demands additional strength in all of its parts is only too evident and becomes essential if we would retain or increase its registration. The fact that it is the oldest institution of the University and is the greatest sufferer in the recent changes incident to the sale of the H Street property only emphasizes its needs and its claim to priority in attention. The beginning of the endowments of the professorships of English and Mathematics should be followed every year by continuous contributions toward these purposes until completed.

FACULTY OF GRADUATE STUDIES.

In the School of Graduate Studies there has been an increased registration over that of last year. During the past year six candidates for the degree of Doctor of Philosophy appeared to defend their various theses, which was successfully done and the degrees duly conferred upon them.

As to the facilities offered by this department of the University I can do no better than to give to you the statement of Dr. Charles E. Munroe, the Dean of the School, as follows:

"During the year just completed we have arranged for our students larger opportunities to make use of the scientific resources of the Government than at any previous time. With the uniting of Professors Gill, Clarke, Wiley, and Merrill with the Faculty at its formation, the laboratories of the Geological Survey and the Bureau of Chemistry, and the collections in the National Museum were made accessible to our students, and they have been used ever since by them. In the last year students have been admitted to the laboratories of the Bureau of Mines,

which also represent material activities of the Government, which are more comprehensive than those comprised in any University; and also to the laboratories of the Marine Hospital and Public Health Service; and to the Institute of Industrial Research. Through the accession of the Chief of the Weather Bureau and the Professor in charge of Mount Weather the splendid facilities for meteorological study afforded by our government are easily accessible to students of the University. By the accession of officials of the Library of Congress the vast collection of books and documents assembled in Washington are made easy of use to our students and under sympathetic direction. What has been done indicates what may be done in rendering the resources of Washington available to accomplish competent and resourceful graduate students."

* * * * *

"Naval officers sent here for advanced instruction looking to fitting them for special ordnance duty have had opened to them the proving ground and explosives laboratories at Pittsburg, and one student has spent a month there. One student doing work in mineral chemistry has been given the admirable facilities of the Geological Survey laboratories during his entire stay with us. Another student in electricity now with us, has been admitted to spend his forenoon hours at the Bureau of Standards and assigned for terms varying from two to four weeks to each of the special laboratories; his afternoon hours are given to chemistry in our own laboratory, and a considerable number of evening hours to lectures in the University. The most richly endowed and best equipped University in the land can afford nothing better for a graduate student.

"The chief weakness in our system is that pointed out in the last annual report, viz., that our regular professors of Graduate Class, are so overburdened with undergraduate work as to be unable to give that time to research, publication, and professional activities which is expected of graduate professors, and even to give that amount of direction and supervision of graduate students which is desired."

A remedy for this weakness mentioned by Dean Munroe can be found by the provision of means for the employment of a large number of young assistants to carry on the major part of the undergraduate work under the direction of the older men. I cannot proceed further without offering my congratulations to Dean Munroe upon his attainment of forty years richly employed in teaching and scientific research. I regret that the University cannot mark this period by the endowment of a chair of chemistry bearing his name. I trust that his friends in general will yet accomplish this tribute to his distinguished work.

COLLEGE OF ENGINEERING AND MECHANIC ARTS.

The Dean of this College reports a diminution in registration due in part to the fact that the mechanical laboratory of this school has

not been re-assembled since our removal from 15th and H Streets, on account of the want of space in its present quarters.

In Civil and Electrical Engineering this institution is sufficiently well equipped to do as full work as in other similar colleges and schools; in mechanical engineering three years of the course are as satisfactory, but the remaining time is handicapped by the want of the use of the mechanical laboratory.

If we could procure a suitable building by purchase or long lease as before mentioned, for the Department of Arts and Sciences, with sufficient area, we could have the opportunity of re-establishing the mechanical laboratory and thus meet the two most pressing and important needs of the whole University. All other needs are secondary in nature and are connected with questions of expansion and progressive improvement.

In closing this notice of the Engineering College I desire to quote the following from the report of the Dean.

"If the reports from students who have graduated from our Engineering courses and have gone into practical engineering are to be accepted our work is up to the full standard. That other engineering schools rank us high is shown by the fact that students who have gone from here have received full credit in other schools for the technical work taken here."

TEACHERS COLLEGE.

The attendance at this college is practically the same as last year, being at present eighty-one in number. Of this number ten are students not otherwise employed and giving their full time, while seventy are students otherwise employed and taking the late afternoon hours. Of those employed there are:

Teachers in service	68
Students in Government employ.....	3
	—
Employed students in all	71

Eighty-one and one-half per cent of the total enrollment consists of teachers in active service in the Public Schools of the District of Columbia.

The teaching in this school is in the hands of an able and zealous body of men, limited in number by the finances of the University. I feel constrained in closing this allusion to the Teachers College to call attention to the fact that in the great territory south of the District of Columbia there is a great need for trained teachers and that the position of the Teachers College of this University, with its attendant local advantages, makes the development of this College one of such general

benefit and desirability that it should receive aid for further development from the general educational funds and foundations in existence in the United States for the advance of education and teaching.

COLLEGE OF POLITICAL SCIENCES.

There has been a decided increase in the registration of this school over that of last year. I feel that as the advantages of this school in this location become better known, the increase in attendance will be a steady one until its full capacity is reached. I do not know of any other institution in this country which affords so many facilities in a practical way for entry into the public service and for efficient service under the General Government in its Consular, Diplomatic, Financial, Statistical and other branches, as this College. It is an institution that appeals to the public spirited of our country for liberal subscriptions, donations, and endowments to aid in the elevation of the public service of the republic. With the present aid from such persons, and from the tuition of students, we can keep up our teaching staff only from year to year and when made possible expand it to meet new demands. On account of this uncertainty endowments of professorships, and still more important, of the school itself, to insure future permanence, becomes its important and ever present need. I quote the final paragraph of the report of Dean Willis of this College as a presentation of matter pertinent to what I have just written.

"Continued experience with the College of Political Sciences has convinced me even more firmly than ever of the importance of the work of the institution. I believe that very strenuous efforts ought to be made to place it upon a definite and permanent basis. Its work has already been of large value to the public service as is shown by the fact that eighteen of our men are now occupying places as United States Consuls, Vice-Consuls, etc., while a considerable number have been prepared for the diplomatic corps. The number prepared for other branches of the public service has been much larger. We were able last year to send men to the Government examinations in Statistics, Accounting, and various others, and they have in the main acquitted themselves with great credit. The influence of the school has made itself felt in the public service and is testified to by officers of the Government whose judgment is unimpeachable. I sincerely believe that it should not only be maintained, but should be extended in its scope."

THE LAW DEPARTMENT.

The registration in the Law School shows a falling off from that of previous years. This has been accounted for after examination by a committee of the Law Faculty by various causes, most of them inevita-

ble from the financial condition of the past few years. Those that are remediable will, it is to be hoped, be arranged for in the future. As to the present and immediate future Dean Gregory recommends: "That our resources should be devoted to steadily maintaining and improving the course leading to the degree of LL. B., and that with a small staff and income, ambitious experiments should be avoided. It is hoped and believed that if such a course of steady, prudent, faithful, but earnest, administration and instruction is pursued along the lines adopted by the best and most respected law schools that the department will maintain and increase its already good reputation and be rewarded by a growing confidence and prosperity."

"It is gratifying to report that after somewhat extended negotiations with reference thereto, our Department was re-registered under the new and more stringent regulation, as an approved school of law by the Board of Regents of the State of New York at their meeting held December 7, 1911, and information of the same was communicated to the Dean by the First Assistant Commissioner of Education of the State of New York."

This is important as affecting the national and international standing of this Department and of its graduates.

DEPARTMENT OF MEDICINE.

This department has been under the charge of Dean W. C. Borden, whose able administration has led to many improvements in the Medical Building as well as in the appliances and facilities for teaching. A committee of the faculty has revised the curriculum of the Medical School using the standard curriculum of the association of American Medical Colleges as a model. The new curriculum meets all the requirements of this Association and seems to be adequate and satisfactory. Every advantage has been taken of the clinics furnished by outside hospitals and the clinical advantages of our own University Hospital and Dispensary.

There has been a gratifying increase in the number of matriculants in this Department. The standing of students graduated in the last two years has been excellent and makes a favorable comparison with the best Medical Schools in the United States.

The Dean of this Department reports that, "The Medical Department of our University has for several years been a member of the Association of American Medical Colleges. Two years ago it was designated as a class "A" school by the American Medical Association and in the same year was given full credit by the Royal Medical Examining Boards of England, a recognition given to but eighteen other medical schools in the United States. This year the Royal College of Physicians and the Royal College of Surgeons of England have determined to issue a diploma for Tropical Medicine to graduates of accredited

schools who pass the required examination and have notified us that our graduates are eligible for entrance to this examination."

THE UNIVERSITY HOSPITAL.

Many improvements have been made in the University Hospital which is now in an excellent condition. These improvements have naturally borne fruit and the Hospital is well patronized by the community besides doing a considerable share of the charity work of the District. So well filled has the hospital been during the past year that it is found desirable that an extension, when possible, of this structure upon adjacent ground owned by the University should be made to the hospital, both to furnish additional quarters for the patients and to lodge the nurses attached to the hospital.

SCHOOL OF DENTISTRY.

The Dean of this school reports that the Department is in excellent working condition, which I have verified by personal inspection. The laboratories have been placed in thorough order during the last summer and the new equipment has repaid for its cost by an increased matriculation.

The teaching staff of the school is doing good work and is in unison with the work of the Medical School with which it is closely connected. The school should have full credit given for its excellent work and high standing of its graduates.

COLLEGE OF PHARMACY.

The following is the report of attendance of this college:

Matriculants, complying with entrance requirements....	30	
Taking the course, not leading to degree.....	7	37
Junior class	19	
Taking the Junior Course, Special.....	2	21
Senior class, taking course leading to degree.....	16	
Taking Senior class, Special	2	18
Taking Microscopy and Chemistry, Special.....	2	
		—
		78
Withdrawals	5	
		—
Attendance December 21.....		73

Dean Kalusowski further reports: "Attendance in the Freshman Class shows an increase over that of the previous year. A larger class could have been enrolled had the officers of the college shown a disposition to waive any of the entrance requirements."

"Attendance and progress of students in all the classes is satisfactory, a condition doubtless due to the strict enforcement of rules to the effect that habitual and unsatisfactorily explained absences from lectures coupled with failure to complete a measured quantity of work in the laboratories, excludes the delinquent from any examination, whether for advancement or for recommendation for the Degree."

By the inventory it is shown that the equipment owned by the college is abundantly sufficient to meet all the requirements called for by the Syllabus contained in the announcements for 1911-12. The Faculty consists of two teachers of Chemistry, one of Pharmacy, one of Microscopy, one of Mercantile Pharmacy, one of Jurisprudence, two assistants in Chemistry and one in Pharmacy, in all ten. This provides sufficient teachers to give students personal attention and supervision, especially when in the laboratories.

COLLEGE OF VETERINARY MEDICINE.

The Veterinary Department of the University has acquired a recognized standing with respect to the civil service of the United States. It graduated a class last year of veterinarians who were well instructed in the many branches of Veterinary science and who found employment in the various branches of this vocation. The teaching follows the course of last year.

Respectfully submitted,

C. H. STOCKTON,
President.

Appended to this report is the following statement of assets and liabilities of the University up to March 1, 1912, showing a gain in net assets since 1909-1910.

THE PRESIDENT'S REPORT.

13

ASSETS.

	1909-10.	Mar. 1, 1912.	Increase.	Decrease.
University and Law Halls....	\$550,000.00			\$550,000.00
Medical Hall and Hospital....	403,599.93	\$403,599.93		
Libraries	35,596.88	37,373.73	\$ 1,776.85	
Furniture and equipment....	73,101.01	74,988.81	1,887.80	
Productive property and funds.	106,017.59	132,987.17	26,969.58	
Unproductive property	35,140.80	29,864.40		5,276.40
Withdrawal value, insurance de-				
posits	3,003.75	1,721.25		1,282.50
Cash, General Fund	1,930.82	13,930.23	11,999.41	
	<u>\$1,208,390.78</u>	<u>\$694,465.52</u>	<u>\$42,633.64</u>	<u>\$556,558.90</u>
				<u>42,633.64</u>
Net decrease				\$513,925.26

LIABILITIES.

	1909-10.	Mar. 1, 1912.	Increase.	Decrease.
Mortgage debt	\$450,000.00			\$450,000.00
Accrued interest on above....	7,500.00			7,500.00
Floating debt to banks.....	71,500.00			71,500.00
Accrued interest on above....	1,321.87			1,321.87
Accrued taxes on real estate..	80.11	\$ 265.00	\$ 184.89	
Accounts payable, old.....	7,718.43			7,718.43
Accounts payable, current....		984.42	984.42	
Unreleased payments to the				
Building Funds	40,373.59	7,393.98		32,979.61
	<u>\$578,494.00</u>	<u>\$ 8,643.40</u>	<u>\$ 1,169.31</u>	<u>\$571,019.91</u>
				<u>1,169.31</u>
Net decrease				\$569,850.60
Net decrease in liabilities...				\$569,850.60
Net decrease in assets.....				513,925.26
Difference showing gain in				
assets				\$ 55,925.34
Assets March 1, 1912.....	\$694,465.52			
Liabilities March 1, 1912.....	8,643.40			
Net assets March 1, 1912....	<u>\$685,822.12</u>			

SUBSCRIBERS TO THE UNIVERSITY SINCE THE ISSUE OF
THE DECEMBER, 1911, BULLETIN.

Toward meeting the old debts:

Mrs. Morris K. Jessup.

Mrs. Mary Farr Perry.

MAINTENANCE FUND.

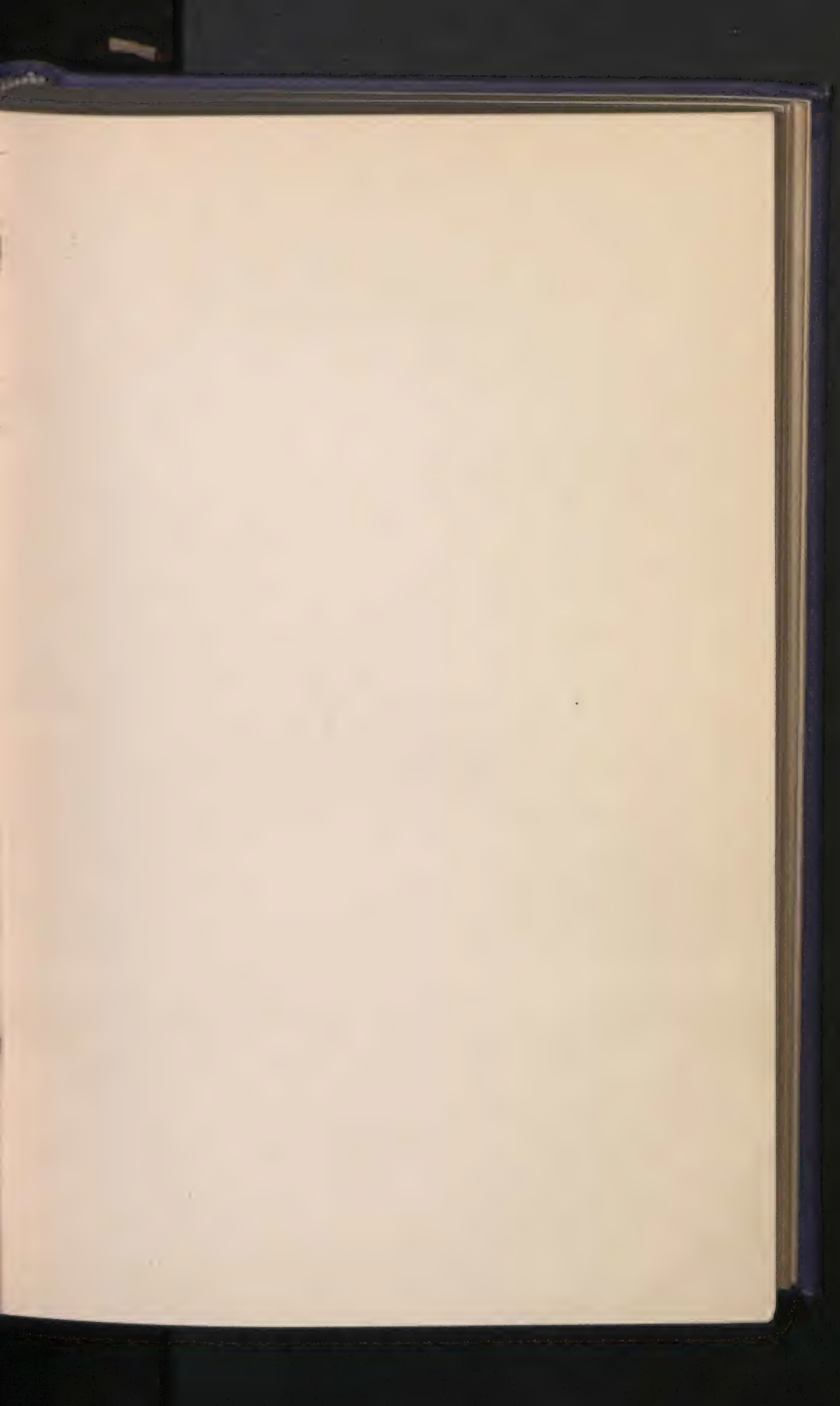
Board of Lady Managers, University Hospital.
F. Ward Denys.
Albert F. Fox.
J. Garfinkle.
T. N. Gill.
John R. McLean.

E. S. Parker.
Hugh Reilly.
Charles W. Richardson.
Samuel Ross.
James H. Saville.
Richard W. Tyler.

\$100 subscriptions to continue annually for five years:

R. M. Thompson (1st sub.).
R. M. Thompson (2d sub.).
B. F. Leighton.
W. K. Carr.
Columbia Alpha Chapter, Pi Beta Phi.
Frank A. Munsey.
W. A. Wimsatt.
C. H. Rudolph.
P. F. Gormley.
G. T. Schutt.
E. J. Murphy.
Frank B. Noyes.

Mrs. John Hay (1st sub.).
Mrs. John Hay (2d sub.).
Mrs. John Hay (3d sub.).
Mrs. John Hay (4th sub.).
Mrs. John Hay (5th sub.).
Mrs. John Hay (6th sub.).
Mrs. John Hay (7th sub.).
Mrs. John Hay (8th sub.).
Mrs. John Hay (9th sub.).
Mrs. John Hay (10th sub.).
Eugene A. Byrnes.
Levi P. Morton.
John P. Story, Jr.

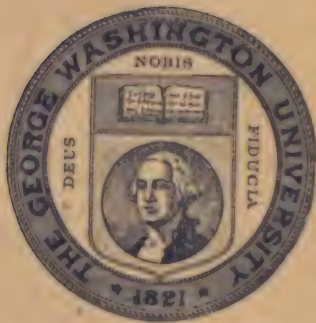


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CATALOGUE NUMBER



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PART I GENERAL AND HISTORICAL

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1912							1913													
JULY							JANUARY							JULY						
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21	22	23	24	25	26	27	19	20	21	22	23	24	25	20	21	22	23	24	25	26
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..	31
SEPTEMBER							MARCH							SEPTEMBER						
1	2	3	4	5	6	7	1	..	1	2	3	4	5	6
8	9	10	11	12	13	14	2	3	4	5	6	7	8	7	8	9	10	11	12	13
15	16	17	18	19	20	21	9	10	11	12	13	14	15	14	15	16	17	18	19	20
22	23	24	25	26	27	28	16	17	18	19	20	21	22	21	22	23	24	25	26	27
29	30	23	24	25	26	27	28	29	28	29	30
..	30	31
OCTOBER							APRIL							OCTOBER						
..	..	1	2	3	4	5	1	2	3	4	5	1	2	3	4
6	7	8	9	10	11	12	6	7	8	9	10	11	12	5	6	7	8	9	10	11
13	14	15	16	17	18	19	13	14	15	16	17	18	19	12	13	14	15	16	17	18
20	21	22	23	24	25	26	20	21	22	23	24	25	26	19	20	21	22	23	24	25
27	28	29	30	31	27	28	29	30	26	27	28	29	30	31	..
NOVEMBER							MAY							NOVEMBER						
..	1	2	1	2	3	1
3	4	5	6	7	8	9	4	5	6	7	8	9	10	2	3	4	5	6	7	8
10	11	12	13	14	15	16	11	12	13	14	15	16	17	9	10	11	12	13	14	15
17	18	19	20	21	22	23	18	19	20	21	22	23	24	16	17	18	19	20	21	22
24	25	26	27	28	29	30	25	26	27	28	29	30	31	23	24	25	26	27	28	29
..	30
DECEMBER							JUNE							DECEMBER						
1	2	3	4	5	6	7	1	2	3	4	5	6	7	..	1	2	3	4	5	6
8	9	10	11	12	13	14	8	9	10	11	12	13	14	7	8	9	10	11	12	13
15	16	17	18	19	20	21	15	16	17	18	19	20	21	14	15	16	17	18	19	20
22	23	24	25	26	27	28	22	23	24	25	26	27	28	21	22	23	24	25	26	27
29	30	31	29	30	28	29	30	31
..

UNIVERSITY CALENDAR.

1912.

June 5, *Wednesday*.—University Commencement.

SUMMER VACATION.

September 25, *Wednesday*.—Academic Year begins in all Departments of the University.

October 9, *Wednesday*.—Stated meeting of the Board of Trustees.

October 21, *Monday*.—Last day for registration for the first term without late-registration fee.

November 28-30, *Thursday to Saturday*, both inclusive.—Thanksgiving recess.

RECESS FROM DECEMBER 23, 1912, TO JANUARY 2, 1913, BOTH INCLUSIVE.

1913.

January 8, *Wednesday*.—Stated meeting of the Board of Trustees.

January 27, *Monday*.—Last day on which dissertations may be presented.

February 3, *Monday*.—Second Term begins.

February 10, *Monday*.—Doctorate Disputation.

February 20, *Thursday*.—Last day for registration for the second term without late-registration fee.

February 22, *Saturday*.—A holiday in all Departments of the University.

March 21-24, *Friday to Monday*, both inclusive.—Easter holidays.

March 25, *Tuesday*.—Davis Prize Speaking.

May 1, *Thursday*.—Last day on which dissertations may be presented.

May 19, *Monday*.—Doctorate Disputation.

May 20-23, *Tuesday to Friday*.—Examinations for admission.

May 30, *Friday*.—A holiday in all Departments of the University.

June 4, *Wednesday*.—Annual meeting of the Board of Trustees.

June 8, *Sunday*.—Baccalaureate Sermon.

June 11, *Wednesday*.—University Commencement.

THE LEGAL HISTORY OF THE CORPORATION.

The George Washington University is the successor of "the Columbian College in the District of Columbia," which was chartered by Act of Congress in 1821. The name and title of the Columbian College were in 1873 changed by an Act of Congress, under the terms of which the College was given the name of "the Columbian University." The Columbian University was by Act of Congress in 1904 authorized to change its name, subject to the approval of the Secretary of the Interior and the Commissioner of Education. The Board of Trustees elected to take the name of "the George Washington University," and the name was approved by the Government officials, as required by the statute; the change of name going into effect September 1, 1904. All the Acts of Congress now in force relative to the Columbian College and the Columbian University are therefore parts of the charter of the George Washington University.

The original charter of the Columbian College was as follows:

An Act to incorporate the Columbian College, in the District of Columbia.

Be it enacted, &c., That there be erected, and hereby is erected and established, in the District of Columbia, a College, for the sole and exclusive purpose of educating youth in the English, learned, and foreign languages, the liberal arts, sciences, and literature; the style and title of which shall be, and hereby is declared to be, "The Columbian College in the District of Columbia."

SEC. 2. *And be it further enacted,* That the said College shall be under the management, direction, and government of a number of Trustees, not exceeding thirty-one, to be elected triennially, by the contributors to the said College, qualified to vote, in such manner, and under such limitations and restrictions, as may be provided by the ordinances of the College, on the first Monday in May; and that the first Trustees of the said College shall consist of the following persons, viz: Obadiah B. Brown, Luther Rice, Enoch Reynolds, Josiah Meigs, Spencer H. Cone, Daniel Brown, Return J. Meigs, Joseph Gibson, Joseph Cone, Thomas Corcoran, Burgis Allison, Thomas Sewall, and Joseph Thaw: which said Trustees, and their successors, shall forever hereafter be, and they are hereby declared to be, one body politic and corporate, with perpetual succession, in deed and in law, to all intents and purposes whatsoever, by the name, style and title of "The Columbian College in the District of Columbia;" by which name and title, they, the said Trustees, and their successors, shall be competent and capable, at law and in equity, to take to themselves and their successors, for the use of the said College, any estate, in any messuage, lands, tenements, hereditaments, goods, chattels, moneys, and other effects, by gift, grant, bargain, sale, conveyance, assurance, will, devise, or bequest, of any person or persons whatsoever: *Provided,* The same do not exceed, in

the whole, the yearly value of twenty-five thousand dollars; and the same messuages, lands, tenements, hereditaments, and estate, real and personal, to grant, bargain, sell, convey, assure, demise, and to farm let, and place out on interest, for the use of the said College, in such manner as to them, or at least nine of them, shall seem most beneficial to the institution, and to receive the rents, issues, and profits, income and interest, of the same, and to apply the same to the proper use and benefit of the said College: and by the same name to sue, commence, prosecute, and defend, implead and be impleaded, in any courts of law and equity, and in all manner of suits and actions whatsoever, and generally, by and in the same name, to do and transact all and every the business touching or concerning the premises.

SEC. 3. *And be it further enacted*, That the said Trustees shall cause to be made for their use one common seal, with such devices and inscriptions thereon as they shall think proper, under and by which all deeds, diplomas, certificates, and acts of the said College, shall pass and be authenticated; and the same seal, at their pleasure, to break and devise a new one.

SEC. 4. *And be it further enacted*, That the said Trustees, or five of them at least, shall meet at the College, on College Hill, in the said District of Columbia, on the first Monday in March next, for the purpose of concerting and agreeing to such business as, in consequence of this Act, shall be proper to be laid before them at the commencement of the work they have undertaken, and shall have power to adjourn from time to time, as they shall see cause, to any other times or places, for the purpose of perfecting the same. That there shall be a stated meeting of the said Trustees held twice in every year at least, at such place and time as the said Trustees, or a quorum thereof, shall appoint, of which public notice shall be given, after the first meeting, at least twenty days before [the] time of such intended meeting, whenever the President, to be appointed by them, shall deem the business of the institution to require the same, and give due notice thereof, which he is hereby authorized to do; and if, at such stated or occasional meetings, five of the said Trustees shall not be present, those of them who shall be present shall have power to adjourn the meeting to any other day, as fully and effectually, to all intents and purposes, as if the whole number of Trustees for the time being were present; but, if five or more of the said Trustees shall meet at the said appointed times, or at any other time of adjournment, then such five of the said Trustees shall be a board or quorum, and a majority of the votes of them shall be capable of doing and transacting all the business and concerns of the said College not otherwise provided for by this Act; and particularly of making and enacting ordinances for the government of the said College; of electing and appointing the President, Professors, and Tutors, for the said College; of agreeing with them for their salaries and stipends, and removing them for misconduct, or breach of the laws of the institution; of appointing committees of their own body to carry into execution all and every the resolutions of the Board; of appointing a President, Treasurer, Secretary, stewards, managers, and other necessary and customary officers, for taking care of the estate and managing the concerns of the corporation; and, generally, a majority of voices of the board, or quorum of the said Trustees, consisting of five persons at least, at any semi-annual, occasional, or adjourned meeting, after notice given as aforesaid, shall determine all matters and things (although the same be not herein particularly mentioned) which shall occasionally arise, and be incidentally necessary to be determined and transacted by the said Trustees: *Provided always*, That no ordinances shall be of

force which shall be repugnant to this charter, or to the laws of the District of Columbia.

SEC. 5. *And be it further enacted*, That the Head or Chief Master for the said College shall be called and styled "The President," and the Masters thereof shall be called "Professors and Tutors;" but neither President, Professors, or Tutors, while they remain such, shall ever be capable of the office of Trustee.

SEC. 6. *And be it further enacted*, That the President, Professors, and Tutors, or a majority of them, shall be called and styled "The Faculty of the College," which Faculty shall have the power of enforcing the rules and regulations adopted by the Trustees for the government of the pupils, by rewarding or censuring them; and, finally, by suspending such of them who as after repeated admonitions shall continue disobedient and refractory, until a determination of a quorum of the Trustees can be had; and of granting and confirming, by and with the approbation and consent of a board of the Trustees, signed by their mandamus, such degrees in the liberal arts and sciences, to such pupils of the institution, or others, who, by their proficiency in learning, or other meritorious distinction, they shall think entitled to them, as are usually granted and conferred in colleges; and to grant, to such graduates, diplomas or certificates, under their common seal, and signed by the Faculty, to authenticate and perpetuate the memory of such graduation.

SEC. 7. *And be it further enacted*, That persons of every religious denomination shall be capable of being elected Trustees; nor shall any person, either as President, Professor, Tutor, or pupil, be refused admittance into said College, or denied any of the privileges, immunities, or advantages thereof, for or on account of his sentiments in matters of religion.

SEC. 8. *And be it further enacted*, That no misnomer of the said corporation shall defeat or annul any gift, grant, devise, or bequest, to or from the said corporation: *Provided*, The intent of the parties shall sufficiently appear upon the face of the gift, grant, will, or other writing, whereby any estate or interest was intended to pass to or from the said corporation.

SEC. 9. *And be it further enacted*, That the constitution of the said College, herein and hereby declared and established, shall be, and remain, the inviolate constitution of the said College forever; and the same shall not be altered or alterable by any ordinance or law of the said Trustees: *Provided*, That it may be lawful for the Congress of the United States to revoke and repeal this Act, at any and at all times whenever they shall think fit so to do.

SEC. 10. *And be it further enacted*, That it shall be the duty of the said Board of Trustees to keep a regular book or journal, in which shall be entered, under their direction, besides an account of all their ordinary acts and proceedings, all the by-laws, ordinances, rules, and regulations, which may be adopted by the said Board, for their own government, and for the government of the institution; also, a schedule of all the property and effects, real, personal, or mixed, which shall or may be vested in the said Trustees, for the use of the said College, by virtue of any gift, grant, bargain, sale, will, or otherwise, together with annual statements concerning the accounts and finances of the institution. That it shall, moreover, be the duty of the said Trustees, to cause to be enrolled, in the said book or journal, the names of all the contributors to the institution qualified to vote for Trustees, with their respective places of residence; and the said book or journal shall, at all times be open to the inspection or examination of the Attorney General of the United States; and, when required by either House of Congress, it shall be

the duty of said Trustees to furnish information respecting their own conduct, the state of the institution, and of its finances, which shall or may be so required.

SEC. 11. *And be it further enacted*, That in case any vacancy or vacancies shall happen in the Board of Trustees aforesaid by death, inability, resignation or otherwise, at any time between the stated or triennial elections, that then it shall and may be lawful for the other Trustees, or any five of them, to proceed, at any subsequent meeting after the happening of such vacancy or vacancies, to choose, by ballot, any suitable person or persons to fill the same.

SEC. 12. *And be it further enacted*, That the employment or application of the funds or income of the said corporation or any part thereof, for any purpose or object other than those expressed and defined in the first section of this Act, or the investment thereof in any other mode than is described and provided in the second section thereof, shall be deemed and taken to be a forfeiture of all the rights and immunities derived from this Act, and the same shall, thenceforth, cease and become null and void.

Approved, February 9, 1821.

By Act of Congress of July 14, 1832, there were donated to the Columbian College Washington city lots to the value of twenty-five thousand dollars; the Act providing that the fund arising from the proceeds of the sale of the lots should constitute an endowment fund for the support of professorships. By Act of February 28, 1839, permission was granted to the College to use seven thousand dollars of the fund for the payment of its debts.

By Act of Congress of February 21, 1871, a form of government by an elected Governor and Legislative Assembly was established for the District of Columbia, and on July 25, 1871, the Legislative Assembly passed the following statute:

An Act for the relief of the Columbian College, in the District of Columbia.

Be it enacted by the Legislative Assembly of the District of Columbia, That the Columbian College, in the District of Columbia, chartered by and organized and acting under the Act of Congress approved February nine, eighteen hundred and twenty-one, may, from the proceeds of any sale of its property, apply such sum as may be needful to pay its present indebtedness and place its libraries, buildings, and apparatus of instruction in good condition, and execute all deeds needful to quiet the title of property already sold.

SEC. 2. *And be it further enacted*, That the Trustees of said College elected in May last shall constitute the corporation of said College until their successors in office shall be chosen and qualified as hereinafter provided, and may, until then, as vacancies occur in their number, temporarily fill them by the election of fit persons residing in the District of Columbia.

SEC. 3. *And be it further enacted*, That the said Trustees shall meet in the Law Building of said College at noon, on the twenty-fifth day of June, eighteen hundred and seventy-two, for the purpose of choosing.

and shall then and there, or at the time and place to which said meeting may be adjourned, elect thirteen Trustees and thirteen Overseers, who shall, upon their election, constitute the College corporation, and they and their successors shall thenceforward be, and be known and recognized as, the Columbian College in the District of Columbia.

SEC. 4. *And be it further enacted*, That the Trustees chosen at the said meeting in June, eighteen hundred and seventy-two, or who may thereafter be chosen, shall be residents of the District of Columbia, and that at said meeting, and at any annual meeting of Trustees and Overseers to be thereafter held in said City of Washington on the Tuesday next preceding the last Wednesday in June, annually, the Trustees and Overseers in convention assembled shall fill vacancies in their Board, and shall, by ballot, elect from among the Trustees two suitable persons, one to be President and the other to be Treasurer and Secretary of said corporation and of the Board of Trustees, and shall establish ordinances and by-laws, or alter or repeal the same; and also frame laws and regulations for the College Faculty and students in all the departments thereof, and by ballot elect such teachers, tutors, professors, lecturers, and President, and with such salaries and duties as said corporation may deem proper.

SEC. 5. *And be it further enacted*, That at said annual meetings not less than seven Trustees and three Overseers shall constitute a quorum for the transaction of any business except adjournment, and adjournment may be made by any number present: *Provided*, That a final adjournment shall not be delayed beyond one week after the time fixed for the annual meeting.

SEC. 6. *And be it further enacted*, That during the interval between said annual meeting the Trustees shall, as now, hold semi-annual, quarterly, monthly, and occasional meetings to fill temporarily, as the case may require, vacancies in the Faculty or in their own Board, and with all their present powers as modified by this Act, subject to the ordinances and by-laws of the corporation; but no real estate or other property of said corporation shall, after the twenty-fifth day of June, eighteen hundred and seventy-two, be disposed of by the Trustees, except by vote of the corporation or in pursuance of its ordinances.

Approved, July 25, 1871.

This Act of the Legislative Assembly of the District was confirmed by Congress in 1873, and by the same statute the College was given the name of "the Columbian University." This Act was as follows:

An Act supplemental to the Act of February ninth, eighteen hundred and twenty-one, incorporating the Columbia[n] College in the District of Columbia.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the act to incorporate the Columbia[n] College in the District of Columbia, approved February ninth, eighteen hundred and twenty-one, be, and the same is hereby, so modified that said corporation shall be hereafter known and called by the name of the Columbia[n] University, and in that name shall take, hold and manage all the estate and property now belonging to said College, or that may hereafter be conveyed, devised, or bequeathed to said corporation by its original name; that the restriction

of the yearly value of the property of the said corporation to the sum of twenty-five thousand dollars be, and the said restriction is hereby, repealed; and that said corporation may increase the number of its Overseers to twenty-one and the number of its Trustees to twenty-one, exclusive of the President of the Faculty, who shall be, *ex officio*, a Trustee of said corporation.

SEC. 2. That the Act for the Relief of the Columbian College in the District of Columbia enacted by the Legislative Assembly of said District, and approved July twenty-fifth, eighteen hundred and seventy-one, be, and the same is hereby, approved and confirmed: *Provided*, That this Act nor the said Act of the Legislative Assembly of the said District, shall be so construed as to authorize the said Columbian University to sell, or use the proceeds of any sale of land granted by Congress to said institution for any purpose other than that expressed in the Act of Incorporation and the Act granting any such land or real estate, or contrary to any will, devise or grant of any land or real estate heretofore or hereafter made, by any person or persons to said institution.

Approved March 3, 1873.

By the Act of Congress of May 31, 1878, it was provided that the annual meeting of the corporation might be held either in May or June, and by the Act of January 14, 1893, it was provided that the Secretary and the Treasurer might be elected from the Trustees or not, as the Board of Trustees might deem proper, and that it should not be necessary that both offices should be held by one person.

In 1898 Congress amended the charter by an Act as follows:

An Act supplemental to the Act of February ninth, eighteen hundred and twenty-one, incorporating the Columbian College in the District of Columbia, and the Acts amendatory thereof.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Columbian University, on and after the first day of June, eighteen hundred and ninety-eight, shall be under the management and control of a Board of Trustees, consisting of twenty-two members; the President of the University shall be *ex officio* a member of said Board, and the remaining twenty-one shall be divided into three classes with seven members in each class; a majority of said Board shall be residents of the District of Columbia, and seven members shall constitute a quorum for the transaction of business. That on or before the thirty-first day of May, eighteen hundred and ninety-eight, a meeting of the Trustees and Overseers of said University shall be held, and said meeting shall elect twenty-one Trustees, seven of whom shall be designated to serve from the first day of June, eighteen hundred and ninety-eight, until the annual meeting in eighteen hundred and ninety-nine; and seven from the same date until the annual meeting in nineteen hundred; and seven until the annual meeting in nineteen hundred and one. Two-thirds of said Trustees, and also the President of the University, shall be members of regular Baptist churches; that is to say, members of churches of that denomination of Protestant Christians now usually known and recognized under the name of the regular Baptist denomination; said Trustees so elected shall serve for the periods mentioned and until their successors are elected.

That on the first day of June, eighteen hundred and ninety-eight, the terms of office of the present Trustees and Overseers shall cease and determine, and thereupon the control and management of said University, its property and trusts, shall vest in the Board of Trustees elected as hereinabove provided and their successors.

SEC. 2. That at the annual meeting in eighteen hundred and ninety-nine, and annually thereafter, there shall be elected by the Board of Trustees seven Trustees to fill the places of the class whose terms of office expire; and the Board of Trustees may prescribe in a by-law the mode of nominating persons for election as Trustees. A failure to elect Trustees at the annual meeting shall not create vacancies in the Board, but such election may be had and vacancies occurring during the year may be filled for the unexpired term by the Board at any general or special meeting.

SEC. 3. That the Board of Trustees provided for herein shall have, and they are hereby given, full power and authority to appoint and remove any and all officers, professors, lecturers, teachers, tutors, agents, and employees who are now or may hereafter be elected or appointed; they may, by a vote of two-thirds of all the Trustees constituting said Board, adopt and change by-laws for the conduct of the business and educational work of said University; they may appoint an Executive Committee composed of Trustees, designate the number and Chairman thereof, with such powers and authority as are usually exercised by an Executive Committee, and which shall be conferred by the Board, subject always to the control of the Board of Trustees; they may create and establish schools and departments of learning to be connected with and become a part of said University; they may receive, invest and administer endowments and gifts of money and property for the maintenance of educational work by said University, and by any department and chair thereof now established or which may hereafter be created or established by said University; and they shall have all the powers and authority heretofore granted to and vested in the Trustees and Overseers of said University.

SEC. 4. That the annual meeting of the Board of Trustees shall be held in the City of Washington, District of Columbia, on the Wednesday nearest the first day of June in each year; two other stated meetings shall be held on the second Wednesday of October and January in each year, and special meetings may be called by the President of the University or by the Executive Committee or by seven members of the Board of Trustees upon such notice and at such hour and place as may be designated in the by-laws; at all meetings any business necessary to be transacted may be considered and acted upon, and any meeting may be adjourned from time to time by the Trustees present, whether constituting a quorum or not; notice of such adjournment to be given, as of called meetings, to those Trustees not present.

SEC. 5. That the terms of office of the President of the University, the Treasurer and other officers, professors, and lecturers, and the employment of agents and employees, and the title to all the property and rights in and management of the endowment funds of the University shall not be affected by the change of management herein provided for, but they shall continue and be subject to the control and management of the Board of Trustees hereby created the same as they are now subject to the control and management of the corporation.

SEC. 6. That all acts and parts of acts inconsistent with the provisions of this Act are hereby repealed.

Approved, March 18, 1898.

In 1904 Congress passed an Act restoring the non-denominational character of the institution and permitting the change of its name. This Act and the certificate of change of name were as follows:

An Act supplemental to the Act of February ninth, eighteen hundred and twenty-one, incorporating the Columbian College in the District of Columbia, and the Acts amendatory thereof.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Act to incorporate the Columbian College in the District of Columbia, approved February ninth, eighteen hundred and twenty-one, and the amendatory Act approved March eighteenth, eighteen hundred and ninety-eight, be and the same are hereby amended by repealing and striking out of the said charter the following words in lines twenty to twenty-five in section one of the said amendatory Act of March eighteenth, eighteen hundred and ninety-eight, namely, "Two-thirds of said Trustees, and also the President of the University, shall be members of regular Baptist churches; that is to say, members of churches of that denomination of Protestant Christians now usually known and recognized under the name of the regular Baptist denomination."

SEC. 2. That section thirteen of the original charter of February ninth, eighteen hundred and twenty-one, which provides "That persons of every religious denomination shall be capable of being elected Trustees; nor shall any person, either as President, Professor, Tutor or pupil, be refused admittance into said College, or denied any of the privileges, immunities, or advantages thereof, for or on account of his sentiments in matters of religion," be, and the same is hereby, re-enacted and shall be hereafter in full force as a part of said charter.

SEC. 3. That power is hereby given to the Board of Trustees of said University to change the name of said University at any regular meeting by a vote of not less than two-thirds of the total number of members of the Board, as prescribed by the charter, subject to the approval of the Secretary of the Interior and the Commissioner of Education. That upon said action being taken a certificate, under the seal of the University, stating the name adopted and the date when the name shall go into effect not less than thirty days nor more than six months from the date of its adoption, together with the fact that said name has been adopted as herein prescribed, shall be filed in the office of the Recorder of Deeds of the District of Columbia, and thereupon, upon the date specified for the name to go into effect, the University shall be known and designated by the name adopted, and by said new name the said University shall be vested with and convey its real estate, hold, control, and administer endowments and gifts of money and property heretofore and hereafter made for the maintenance of its educational work, and do and perform all acts which it now has the power to do under its said charter. Such change of name shall not in any other way change, affect, or modify in any degree the rights, privileges, obligations, and powers of the said University under the charter of February ninth, eighteen hundred and twenty-one, and the amendatory Acts thereto.

SEC. 4. That all Acts and parts of Acts inconsistent with this Act are hereby repealed.

Approved, January 23, 1904.

**Certificate of Change of Name of the Columbian University to
"The George Washington University."**

DISTRICT OF COLUMBIA,
City of Washington:

The Columbian University, in accordance with the Act of Congress approved January 23, 1904, does hereby certify that, at the regular meeting of its Board of Trustees, duly held on the eighth day of June, 1904, at which meeting there were present more than two-thirds of the total number of members of the Board, it was unanimously resolved that, subject to the approval of the Secretary of the Interior and the Commissioner of Education, prescribed by said Act of Congress, the name of this University be changed to that of The George Washington University, the same to go into effect on the first day of September, A. D. 1904.

And it is hereby further certified, that on the twentieth day of June, A. D. 1904, the Secretary of the Interior and the Commissioner of Education duly approved in writing said change of name, which said written approval is hereto attached and made a part hereof.

In testimony whereof, said Columbian University has given this its certificate under its corporate seal, at the City of Washington, D. C., on the twenty-first day of June, A. D. 1904.

CHARLES W. NEEDHAM,
President.

Attest:
JOHN B. LARNER,
Secretary.
(Corporate Seal.)

UNITED STATES OF AMERICA,
DEPARTMENT OF THE INTERIOR,
WASHINGTON, D. C., *June 20, 1904.*

Pursuant to section 882 of the Revised Statutes, I hereby certify that the annexed paper is a true copy of the original as it appears upon the files of the Department.

In testimony whereof, I have hereunto subscribed my name, and caused the seal of the Department of the Interior to be affixed, the day and year first above written.

E. A. HITCHCOCK,
Secretary of the Interior.
W. B. A.

(Seal of the Department of the Interior.)

Whereas by Act of Congress approved January 23, 1904, the Columbian University was authorized to change its name, subject to the approval of the Secretary of the Interior and the Commissioner of Education;

And whereas it has been made satisfactorily to appear to us that, at the regular meeting of the Board of Trustees of said University, held on the eighth day of June, A. D. 1904, at which meeting there were present more than two-thirds of the total number of members of said Board, it was unanimously resolved to change the name of said University to that of The George Washington University, the same to go into effect on the first day of September, A. D. 1904;

Now, therefore, this is to witness that, pursuant to said Act of Congress, we do hereby, this twentieth day of June, A. D. 1904, approve said change of name.

E. A. HITCHCOCK,
Secretary of the Interior
 W. T. HARRIS,
Commissioner of Education.

(Seal of the Department of the Interior.)

In 1905 a further amendment to the charter was made, as follows:

An Act supplemental to the Act of February ninth, eighteen hundred and twenty-one, incorporating the Columbian College in the District of Columbia, and the Acts amendatory thereof.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled. That The George Washington University shall have, and is hereby given, power to increase the number of its Trustees from time to time by a two-thirds vote of the whole number of the Trustees at the time such vote is taken, to a number not exceeding forty-five. In case of the increase of the number of Trustees a certificate, stating the number of the Board and the time when it shall go into effect and that the action so taken was by two-thirds vote as required by this Act, shall be filed with the Recorder of Deeds of the District of Columbia, and upon and after the date named the Board shall consist of the number of Trustees, stated in such certificate, and said Board may also appoint a Board or Boards of Visitors for any department or departments of educational work carried on by the University, such Boards of Visitors to be advisory only.

SEC. 2. That by and with the consent of said University, Colleges may be organized hereunder for the purpose of carrying on, in connection with the University, special lines of educational work in the arts, sciences, and liberal and technical knowledge, such Colleges to be educationally a part of the system of the University, but upon independent financial foundations, and to this end any five or more persons desirous of associating themselves for the purpose of establishing a College hereunder, may make, sign, and acknowledge before any officer authorized to take acknowledgement of deeds in the District of Columbia, and with the assent of the University in writing, file in the office of the Recorder of Deeds of the said District a certificate in writing, in which shall be stated: First, the intention to organize a corporation under this Act and the assent of the University thereto; second, the name or title by which the College shall be known in law; third, the names of the Trustees constituting the first Board, and such Trustees may be divided into three classes, the term of office of one class expiring annually; fourth, the manner of nominating and electing successors to said Trustees; fifth, the branch or branches of literature, arts, sciences, liberal or technical knowledge proposed to be taught; sixth, that the highest officer of said College shall be a Dean, the Dean and members of the Faculty to be members of the Educational Councils of the University in accordance with the rules governing the University; seventh, that all degrees shall be bestowed by the University; eight, that in all financial and legal responsibility the College shall be an independent organization. Upon filing such cer-

tificate the Trustees named therein and their successors shall be a body politic, incorporated by the name and style stated in the certificate, and by that name and style shall have perpetual succession in association with the University, with power in the College to sue and be sued; plead and be impleaded; to acquire, hold, and convey property in all legal ways; to receive by gift, devise, or otherwise, and hold, control, and administer endowments and gifts of money and property thereafter made to it for the maintenance of its educational work; to have and use a common seal and to alter and change the same at pleasure; to make and alter from time to time such by-laws, not inconsistent with the Constitution of the United States or the laws in force in said District or the laws of the University regulating the conduct of educational work, as may be deemed necessary for the government of the College, but said College shall not confer academic or honorary degrees; such College shall hold the property of the institution and all moneys and property conveyed to it by purchase, gift, conveyance, will, devise, or bequest solely for the purposes of the educational work specified in said certificate; the Trustees of such College shall faithfully apply all funds collected or received and the proceeds thereof belonging to the institution, according to their best judgment, in purchasing lands and erecting buildings, supporting necessary officers, instructors, and servants, and procuring all equipment, educational and otherwise, necessary to carry on the work of the College.

SEC. 3. That said University may enter into affiliated agreements with any institutions of learning outside of the District of Columbia, for the purpose of giving to students of such institutions the educational facilities of said University and the Departments of the Government in the City of Washington which are by law open to students, upon such terms as are mutually agreed upon by the said University and the affiliated institutions.

Approved, March 3, 1905.

Under section 2 of the Act of 1905, there now exist two colleges which are doing special educational work and which are in active operation—the National College of Pharmacy, organized in 1905, and the College of Veterinary Medicine, organized in 1908. The financial affairs of these Colleges are separate from those of the University, and are managed by their separate Boards of Trustees. The Faculties of these Colleges are also appointed by their respective Boards of Trustees. The connection between these Colleges and the University consists in the fact that their Deans are members of the President's Council, and that the Board of Trustees of the University confers degrees for the work done in these Colleges.

By resolutions of the Board of Trustees of the University of May 6, 1909, and January 12, 1910, provision was made for the nomination by the Alumni of two Alumni Trustees each year. In the spring of 1910, this plan was put in operation, and since then the two persons nominated as Alumni Trustees have been elected to membership on the Board.

BY-LAWS OF THE GEORGE WASHINGTON UNIVERSITY.

ARTICLE I.

The President of the University.

SECTION 1. The President of the University shall hold office without limit of time, until his resignation be accepted, or he be removed from office by the Board of Trustees; he shall be the executive head of the University and of all its departments, exercising such supervision, direction, and control as will promote the efficiency of every department; he shall be responsible, under the supervision of the Board of Trustees, for the discipline of the University; he shall preside at the meetings of the Faculties, and be the official medium of communication between the Faculties and the Board of Trustees, and between the students of the University and the Board of Trustees; he shall recommend to the Board of Trustees appointments to the several Faculties; he shall be responsible for carrying out such measures concerning the internal administration of the University as the Board of Trustees may enact. He shall make a yearly report to the Board of Trustees at the January meeting concerning the state of the University. He shall control the expenditure and administration of the yearly budget when formally adopted by the Board of Trustees.

ARTICLE II.

Board of Trustees.

SECTION 1. No member of the teaching staff of the University except the President of the University, or of the teaching staff of any college incorporated under the charter of the University, while he remains such, shall be capable of holding the office of Trustee of the University.

SEC. 2. At the annual meeting of the Board after the election of Trustees, the Board shall elect by ballot from among their number a Chairman and Vice-Chairman of the Board to serve until the next annual meeting and until their successors are elected and qualified. The Chairman of the Board, and in his absence the Vice-Chairman, shall preside at all meetings of the Board of Trustees.

SEC. 3. At the annual meeting after the election of Trustees the Board shall elect by ballot the following officers, to serve until the next annual meeting and until their successors are elected and qualified: a Secretary, a Treasurer, an Auditor, and a Counsel of the University.

SEC. 4. In the event of a failure for any reason so to elect either or all of the said officers, or in case of any vacancy from any cause, then an election may be held for the unexpired term at a meeting called for that purpose.

SEC. 5. The annual meeting of the Board of Trustees shall take place on the Wednesday nearest the first day of June of each year.

SEC. 6. Stated meetings of the Board shall be held on the second Wednesdays of October and January.

SEC. 7. Notice of all stated meetings shall be mailed by the Secretary of the University to each member of the Board at least five days previous to the time of such meetings.

SEC. 8. Special meetings may be called at any time by the President of the University, the Executive Committee, or by seven members of the Board of Trustees. The Secretary shall issue the notices of such meetings.

SEC. 9. The call for special meetings shall state the nature of the business to be considered, and shall be mailed at least two days before the meeting is to be held.

SEC. 10. Seven members of the Board of Trustees shall constitute a quorum for the transaction of any business.

ARTICLE III.

Executive Committee.

SECTION 1. There shall be an executive committee of seven members of the Board of Trustees, of which the President of the University shall be a member *ex officio*. The other members of the committee shall be elected by ballot at the annual meeting, and shall serve until their successors are elected. The Board shall designate one of the members of the Committee to act as Chairman.

SEC. 2. In case of inability to act on the part of any member of the Committee his place may be filled by the Board of Trustees.

SEC. 3. Four members of the Committee shall constitute a quorum for the transaction of business.

SEC. 4. The Committee is authorized to transact such business as may require attention between the regular meetings of the Board of Trustees; but the Chairman of the Committee shall make a report at each stated meeting of the Board on the proceedings of the Committee during the intervening period, and at any meeting of the Board, if any

member of the Board shall request that the report of the proceedings of any meeting or meetings of the Committee be read, the same shall be read by the Secretary.

SEC. 5. Regular meetings of the Committee shall be held during the academic year monthly, on the second Tuesday of the month, and special meetings may be called by the Secretary whenever requested by the Chairman or any two members of the Committee.

SEC. 6. In case of inability to act on the part of the Chairman of the Committee, the Committee may appoint a temporary chairman for the meeting.

ARTICLE IV.

Chairman of the Executive Committee.

SECTION 1. It shall be the duty of the Chairman of the Executive Committee to have the superintendence of the business affairs of the corporation and to keep the Executive Committee and the Board of Trustees informed concerning the same, and to see that all matters of business relating to the corporation are regularly presented to the Executive Committee and the Board for action.

ARTICLE V.

Standing Committees.

SECTION 1. At the annual meetings there shall be appointed a Committee of three members for each school or department of the University, who shall visit and inspect the conditions and conduct of the school or department and make a written report thereon to the stated meetings of the Board of Trustees.

SEC. 2. Provisional appointments to any Faculty may be made by the President after consideration of the nomination of the Dean of the Faculty, and, with the approval of the committee of the school immediately concerned, the appointment to hold good until the next meeting of the Board or of the Executive Committee.

ARTICLE VI.

The Secretary of the University.

SECTION 1. The Secretary of the University shall as such attend and keep minutes of all meetings of the Board of Trustees, the Executive

Committee, the educational council and faculties, as may by resolution of the Board be required to keep records. He shall give to any meeting at which he is entitled to be present any information concerning University affairs which he may have and which may be proper to be brought before such meeting. He shall have the custody of all the files and records of the University proper to his office; he shall have the custody of the corporate seal of the University, and shall affix it to corporate acts authorized by the Board of Trustees or the Executive Committee, and he shall generally do and perform such administrative duties as may be assigned him by the President from time to time not inconsistent with the by-laws.

ARTICLE VII.

The Treasurer of the University.

SECTION 1. The Treasurer shall give a bond or shall be bonded in a surety company, at the expense of the University, for the faithful performance of his duties in such sum and with such sureties as shall be approved by the Board of Trustees.

SEC. 2. He shall keep all the funds of the University in such bank or banks as the Board of Trustees shall designate; he shall keep the trust funds, and the full account thereof, separate from the current or general funds and accounts of the University; he shall make monthly statements, showing the current financial operations and the condition of the trust funds and other invested funds to the Executive Committee; he shall make a full report annually to the Board of Trustees as specified in Article XI, and he shall at such other times make such reports as the Trustees may require.

SEC. 3. He shall make payments only by checks upon the bank countersigned by the President of the University, or in his absence by the Secretary, and only for investments, salaries, bills, and expenses authorized by the Board of Trustees or the Executive Committee, provided, however, that when the Treasurer is absent or incapacitated, or when the office of Treasurer is vacant, or when the President and Secretary are both absent or incapacitated, or in any other emergency, the Executive Committee may by resolution make special and temporary arrangements for the signing or countersigning of checks.

ARTICLE VIII.

The Auditor of the University.

SECTION 1. The Auditor of the University shall make three audits each year of the books and accounts of the Treasurer. The fiscal year

shall end at midnight on August 31st of each year, and the accounts shall be audited as of December 31st, April 30th and August 31st at midnight.

SEC. 2. A corporation may be elected by the Board of Trustees as the Auditor of the University.

ARTICLE IX.

The Counsel of the University.

SECTION 1. The Counsel of the University shall render opinions to the President, the Board of Trustees, or to the Executive Committee, when requested, upon legal questions arising in the management of the educational or business affairs of the University, and shall represent the University in all legal proceedings prosecuted by or against the University. The Counsel of the University may be a member of the Board of Trustees.

ARTICLE X.

Committee on Catalogue.

SECTION 1. In June of each year the annual catalogue of the University shall be prepared by a committee consisting of the President of the University as Chairman, the Secretary of the University, and three members of the Faculty of the University appointed by the President. The Catalogue shall be published annually in pamphlet form. Each annual catalogue shall contain the charter and by-laws of the University.

ARTICLE XI.

Annual Financial Report.

SECTION 1. Between July 1st and October 1st in each year there shall be prepared by the Treasurer a financial report showing in detail the financial condition of the University during the previous year, which financial report shall be certified by the Auditor to be correct. This report shall be filed with the Secretary on or before October 1st and shall be laid before the Board of Trustees at their October meeting, and when approved by the Board of Trustees shall, with any modifications ordered by them and assented to by the Treasurer and Auditor, be printed by the University in pamphlet form.

ARTICLE XII.

Sale of Land and Other Assets.

SECTION 1. Real estate and other securities of the University shall not be sold or disposed of except by direction of the Board of Trustees,

SEC. 2. All deeds and conveyances of real estate belonging to the University shall be signed by the President of the University and the Secretary, and the same shall be acknowledged, attested, and the seal of the University attached thereto by the Secretary.

ARTICLE XIII.

Amendments.

SECTION 1. These by-laws may be amended or repealed at any meeting of the Board by a vote of the majority of all members of the Board, provided notice of the proposed amendment or change has been sent to each member of the Board at least five days before the meeting.

ARTICLE XIV.

Former By-Laws Repealed.

SECTION 1. All by-laws heretofore enacted are hereby repealed.

ORDINANCE.

ARTICLE I.—*Organization.*

SECTION 1. The educational work of the University shall be divided into departments, and again subdivided into colleges or schools. The departments, colleges, and schools forming an integral part of the University are as follows: The Department of Arts and Sciences, comprehending the School of Graduate Studies, Columbian College, the College of Engineering and Mechanic Arts, the College of the Political Sciences, the Teachers College; the Department of Law; the Department of Medicine; the Department of Dentistry. These departments, colleges, and schools are subject to the Board of Trustees represented by the President of the University, and unless otherwise noted, to the rules and regulations herein set forth.

SEC. 2. Associated colleges organized in accordance with the charter of the University on independent financial foundations are under the immediate control of their respective Boards of Trustees, subject in educational matters to the authority of the President and the Univer-

sity Board of Trustees. The National College of Pharmacy and the College of Veterinary Medicine are such associated colleges.

SEC. 3. The Department of Medicine, including the School of Medicine and the University Hospital, and the Department of Dentistry are organized under special ordinances of the Board of Trustees, and are subject to the rules and regulations of this ordinance only where the special ordinances governing them do not conflict with this ordinance.

ARTICLE II.—*Faculties.*

SECTION 1. Each department, college, and school shall be under the immediate charge of a faculty subject to the authority of the President's Council. The faculties shall recommend to the Board of Trustees candidates for degrees, diplomas, certificates, and awards.

SEC. 2. Each faculty shall be composed of all the Professors, Assistant Professors, and Instructors who teach in the department, school, or college under the charge of that faculty, and of such other members as the faculty may, on the recommendation of the Dean, with the approval of the President, admit to membership. The President shall be *ex officio* a member of each faculty, and the Secretary shall *ex officio* have voice at all faculty meetings, but no vote.

SEC. 3. A faculty may, at its discretion, delegate any of its purely administrative powers to an executive committee of which a Dean shall be Chairman, the members of which shall be nominated by that Dean and appointed by the President. Every executive committee shall be subject to the authority of the faculty from which it is appointed.

ARTICLE III.—*President's Council.*

SECTION 1. The President's Council shall have charge of all administrative educational questions, subject to the confirmation of the Board of Trustees.

SEC. 2. The President's Council shall be responsible for the co-ordination of work throughout the University and shall have immediate jurisdiction over every administrative educational question touching the interests of more than one department, college, or school.

SEC. 3. The President's Council shall be composed of the President of the University, the Secretary of the University, and of all the Deans in the University, *ex officio*, and of a representative or representatives from each department, college, and school of the University to be elected annually by the faculties of the respective departments, colleges, and schools; those departments, colleges, and schools with a registration of less than two hundred students having one representative, those with more than two hundred students having two representatives.

ARTICLE IV.—*Deans.*

SECTION 1. The Dean of each department, college, or school shall be appointed by the Board of Trustees from among the members of its faculty. The Dean shall, under the President, be the chief executive officer of his department, college, or school. As such he shall have authority in his department, college, or school to enforce such regulations as may be imposed by the Board of Trustees or the Faculty. He shall be held responsible for the proper preparation and conduct of the business of his department, college, or school, and for the performance of such administrative duties as pertain to his office and may be required of him by the President. He shall make annual written reports to the President.

ARTICLE V.—*Titles of the Teaching Staff.*

SECTION 1. The academic titles of those engaged in teaching shall be Professor, Assistant Professor, Instructor, Assistant, Demonstrator, and Lecturer. The word "Associate" may be prefixed to any title where, under the terms of this ordinance, it is appropriate, and in the Department of Medicine this title may be used as provided in the special ordinances governing that department.

ARTICLE VI.—*Appointments.*

SECTION 1. Instructors, Assistants, Demonstrators, and Lecturers shall, in the absence of agreement to the contrary, be appointed annually, with such compensation as shall be fixed by the Board of Trustees at the time of the appointment.

SEC. 2. Assistant Professors shall not be appointed for more than three years, subject to removal in accordance with the provisions of the charter of the University, and shall serve as Assistant Professors for at least three years before being eligible for promotion to a professorship.

SEC. 3. Professors shall be appointed without limit of time, subject to removal in accordance with the provisions of the charter of the University.

ARTICLE VII.—*Academic Year.*

SECTION 1. The academic year shall begin on the last Wednesday of September, and shall end on the Wednesday following the annual meeting of the Board of Trustees.

THE BOARD OF TRUSTEES.

CHARLES HERBERT STOCKTON, LL.D.,
President of the University.

1913.

- HENRY GUSTAV BEYER, M.D., Ph.D., 1725 H Street.
ALDIS BIRDSEY BROWNE, LL.B., 1419 F Street, N. W.
ARCHIBALD HOPKINS, A.M., LL.B., 1826 Massachusetts Avenue, N. W.
THOMAS SNELL HOPKINS, LL.B., Hibbs Building.
*WILLIAM BRUCE KING, A.M., LL.M., 1708 S Street, N. W.
*AUGUSTUS STORRS WORTHINGTON, LL.B., 416 Fifth Street, N. W.

1914.

- *HARRY CASSELL DAVIS, A.M., LL.D., 1006 Massachusetts Avenue, N. W.
WILLIAM JAMES FLATHER, Riggs National Bank.
WILLIAM DAVID HOOVER, LL.M., National Savings & Trust Company.
*JOHN BELL LARNER, LL.B., LL.D., 900 F Street, N. W.
HENRY BROWN FLOYD MACFARLAND, 1420 New York Avenue, N. W.
WILLIAM HENRY SINGLETON, A.B., 2020 H Street, N. W.

1915.

- GIST BLAIR, A.B., LL.B., Union Trust Building.
ABRAHAM LISNER, 1723 Massachusetts Avenue, N. W.
WILLIAM ANDREW MEARNES, LL.M., 2301 S Street.
*THEODORE WILLIAMS NOYES, A.M., LL.M.,
1101 Pennsylvania Avenue, N. W.
HENRY CLEVELAND PERKINS, 1701 Connecticut Avenue, N. W.
*ALEXANDER TAIT STUART, A.M., The Wyoming.
MAXWELL VAN ZANDT WOODHULL, A.M., 2033 G Street.

* Nominated by the Alumni.

Chairman of the Board of Trustees.

JOHN BELL LARNER.

Vice-Chairman of the Board of Trustees.

ARCHIBALD HOPKINS.

Standing Committees of the Board of Trustees.

Executive: Davis, Flather, A. Hopkins, Lisner, Singleton, Stockton, Woodhull.

Auditing: Flather, Mearns, Hoover.

Degrees: Stockton, Beyer, A. Hopkins, Macfarland.

Subscriptions and Endowments: Lisner, Macfarland, Perkins, Flather, Woodhull.

Columbian College: Singleton, Davis, King.

Engineering: Perkins, Woodhull.

Political Science: A. Hopkins, King, Browne.

Graduate School and Teachers College: Stuart, Blair.

Law: Larner, Worthington, Macfarland.

Medicine, Dentistry, and the Hospital: Beyer, Larner, T. S. Hopkins.

Associated Colleges: T. S. Hopkins, Browne, Noyes.

—RICHARD COBB, *Secretary of the University.*

—CHARLES WENDELL HOLMES, *Treasurer of the University.*

AMERICAN AUDIT COMPANY, *Auditor of the University.*

PRESIDENT'S COUNCIL.

(Arranged in Departmental Groups.)

CHARLES HERBERT STOCKTON, LL.D.....	PRESIDENT OF THE UNIVERSITY
RICHARD COBB, A.B.....	Secretary of the University
CHARLES EDWARD MUNROE, Ph.D.,	Dean of the School of Graduate Studies
CHARLES EDWARD MUNROE, Ph.D., LL.D.....	Dean of the School of Graduate Studies
WILLIAM ALLEN WILBUR, A.M.....	Dean of Columbian College
CHARLES CLINTON SWISHER, Ph.D, LL.D.....	Professor of History
GEORGE NEELY HENNING, A.M.....	Professor of Romance Languages
HOWARD LINCOLN HODGKINS, Ph.D.....	Dean of the College of Engineering and Mechanic Arts
OSCAR ALEXANDER MECHLIN, C.E.....	Assistant Professor of Civil Engineering
CHARLES WILLIAM AUGUST VEDITZ, LL.B., Ph.D.....	Acting Dean of the College of the Political Science
BLAINE FREE MOORE, A.M.....	Assistant Professor of Political Science
WILLISTON SAMUEL HOUGH, Ph.M.....	Dean of the Teachers College
WILLIAM CARL RUEDIGER, Ph.D..	Professor of Educational Psychology
CHARLES NOBLE GREGORY, A.M., LL.D..	Dean of the Department of Law
JOHN PAUL EARNEST, A.M., LL.M.....	Professor of Law
WILLIAM CLINE BORDEN, M.D....	Dean of the Department of Medicine
SHEPHERD IVORY FRANZ, Ph.D.....	Professor of Physiology
JOHN ROLAND WALTON, D.D.S....	Dean of the Department of Dentistry
HENRY CLAY THOMPSON, D.D.S.....	Professor of Operative Dentistry
HENRY E. KALUSOWSKI, Phar.D.....	Dean of the National College of Pharmacy
DAVID EASTBURN BUCKINGHAM, V.M.D.....	Dean of the College of Veterinary Medicine

COMMITTEES OF THE PRESIDENT'S COUNCIL.

- Catalogue and Other Publications:* The President, the Secretary,
Professors Hodgkins, Willis, and Wilbur.
- Admissions:* Professors Wilbur, Munroe, and Hough.
- Schedule:* Professors Henning, Mechlin, and Ruediger.
- Library:* Professors Hough, Kern, the Librarian.
- Student Organizations:* Professors Ruediger, Henning, and ———.
- Debating:* Professor Veditz; Messrs. W. E. Calley, and W. R. Fitch.

UNIVERSITY MEMBERS OF FACULTIES AND TEACHING STAFF.*

(Arranged with the exception of the President, in groups, in the order of appointment.)

CHARLES HERBERT STOCKTON, LL.D.....PRESIDENT OF THE UNIVERSITY

Professors.

- J. FORD THOMPSON, M.D.....Professor of Surgery, Emeritus
- ALBERT FREEMAN AFRICANUS KING, A.M., M.D., LL.D....Professor of Obstetrics, and Dean Emeritus of the Faculty of Medicine
- THEODORE NICHOLAS GILL, M.D., Ph.D., LL.D....Professor of Zoology, Emeritus
- GEORGE NICHOLAS ACKER, A.M., M.D.....Professor of Pediatrics and Clinical Professor of Medicine
- HOWARD LINCOLN HODGKINS, Ph.D., Dean of the College of Engineering and Mechanic Arts, and Professor of Mathematics
- HENRY CRECY YARROW, M.D.....Professor of Dermatology, Emeritus
- DANIEL KERFOOT SHUTE, A.B., M.D.....Professor of Neuro-Anatomy, and Clinical Professor of Ophthalmology
- HENRY CLAY THOMPSON, D.D.S.....Professor of Operative Dentistry
- HERMANN SCHOENFELD, Ph.D., LL.D.....Professor of German
- STERLING RUFFIN, M.D.....Professor of Medicine
- CHARLES EDWARD MUNROE, Ph.D., LL.D...Dean of the School of Graduate Studies and Professor of Chemistry
- GEORGE PERKINS MERRILL, Ph.D.....Professor of Geology and Mineralogy
- CHARLES WILLIAMSON RICHARDSON, M.D....Professor of Laryngology, Rhinology, and Otology
- FRANK WIGGLESWORTH CLARK, Sc.D., Professor of Mineral Chemistry
- HARVEY WASHINGTON WILEY, M.D., Ph.D., LL.D.....Professor of Agricultural Chemistry
- MELVILLE CHURCH, LL.M.....Professor of the Law of Patents
- WILLIAM ALLEN WILBUR, A.M.....Dean of Columbian College and Professor of English
- JOHN WESLEY BOVEE, M.D.....Professor of Gynecology
- THOMAS ASH CLAYTOR, M.D.....Clinical Professor of Medicine
- AURELIUS RIVES SHANDS, M.D.....Professor of Orthopedic Surgery
- CHARLES CLINTON SWISHER, Ph.D., LL.D.....Professor of History
- RANDOLPH BRYAN CARMICHAEL, M.D.....Professor of Dermatology
- FRANCIS RANDALL HAGNER, M.D., Professor of Genito-Urinary Surgery and Venereal Diseases
- WALTER COLLINS CLEPHANE, LL.M.....Professor of Law

*NOTE.—In many instances members of the Teaching Staff give only part time to the University. For the names of the members of the Faculties and Teaching Staff of the Associated Colleges, see Part III of this catalogue.

- MITCHELL CARROLL, Ph.D....Professor of Greek and the History of Art
 PAUL BARTSCH, Ph.D.....Professor of Zoology
 EDWIN CHARLES BRANDENBURG, LL.M.....Professor of Law
 ARTHUR PETER, LL.M.....Professor of Law
 WILLIAM CREIGHTON WOODWARD, M.D., LL.M....Professor of Medical
 Jurisprudence
 ALBERT LIVINGSTON STAVELY, M.D....Clinical Professor of Gynecology
 GEORGE NEELY HENNING, A.M.....Professor of Romance Languages
 JOHN PAUL EARNEST, A.M., LL.M.....Professor of Law
 JOHN ROLAND WALTON, D.D.S.....Dean of the Dental School and
 Professor of Prosthetic Dentistry and Orthodontia
 WILLIAM ALANSON WHITE, M.D.....Professor of Psychiatry, and
 Clinical Professor of Neurology
 CHARLES WILLIAM AUGUST VEDITZ, LL.B., Ph.D..Acting Dean of the
 College of the Political Sciences, Professor of Sociology
 WILLISTON SAMUAL HOUGH, Ph.M.....Dean of Teachers College and
 Professor of Philosophy
 GEORGE MILLER STERNBERG, M.D., LL.D.....Professor of Preventive
 Medicine
 ASAPH HALL, JR., Ph.D.....Professor of Astronomy
 ARTHUR AUGUSTIN SNYDER, M.D.....Clinical Professor of Surgery
 ALBERT MANN, A.M., Ph.D.....Professor of Botany
 SHEPHERD IVORY FRANZ, Ph.D.....Professor of Physiology
 HENRY PARKER WILLIS, Ph.D..Dean of the College of the Political
 Sciences and Professor of Economics and Finance
 (*Absent during 1912-13.*)
 CHARLES SIDNEY SMITH, Ph.D.....Professor of Greek and Latin
 WENDELL PHILIPS STAFFORD, LL.D.....Professor of Law
 WILLIAM CLINE BORDEN, M.D....Dean of the Medical Department and
 Professor of Surgery
 JOHN RYDER WELLINGTON, M.D.....Clinical Professor of Surgery
 CHARLES STANLEY WHITE, M.D.....Professor of Oral Surgery and
 Associate in Surgery
 DANIEL WEBSTER PRENTISS, M.D.....Professor of Hygiene
 WILLIAM KENNEDY BUTLER, A.M., M.D...Professor of Ophthalmology
 FREDERICK FULLER RUSSELL, M.D.....Professor of Pathology and
 Bacteriology
 BUCKNER MACILL RANDOLPH, M.D....Professor of Materia Medica and
 Therapeutics
 LUTHER HALSEY REICHELDERFER, M.D....Clinical Professor of Surgery
 LOUIS ANATOLE LA GARDE, M.D.....Professor of Military Surgery
 THOMAS MALCOLM PRICE, Ph.D..Professor of Physiological Chemistry
 WILLIAM CARL RUEDIGER, Ph.D..Professor of Educational Psychology
 ALFRED FRANCIS WILLIAM SCHMIDT, A.M..Librarian and Professor of
 German

- WILLIS LUTHER MOORE, Sc.D., LL.D.....Professor of Practical Meteorology
- WILLIAM JACKSON HUMPHREYS, C. E., Ph.D.....Professor of Meteorological Physics
- MONTGOMERY EARL HIGGINS, M.D.....Professor of Tropical Diseases
- CHARLES NOBLE GREGORY, A.M., LL.D....Dean of the Department of Law and Professor of Law
- WILLIAM CABELL MOORE, M.D.....Professor of Anatomy
- NOBLE PRICE BARNES, M.D.....Professor of Materia Medica, Associate Professor of Materia Medica and Therapeutics, and Clinical Associate in Medicine.
- GIDEON BROWN MILLER, S.B., M.D....Clinical Professor of Gynecology
- MATTHEW KOLLIG, A.B., M.D.....Professor of Anatomy
- JULIAN MAYO CABELL, M.D.....Clinical Professor of Obstetrics

Associate Professors.

- JOHN ROBERT DE FARGES, D.D.S.....Associate Professor of Dental Metallurgy, Economics, Jurisprudence, and Ethics
- HURON WILLIS LAWSON, S.M., M.D.....Associate Professor of Obstetrics and Associate Obstetrician in Chief to the University Hospital and Dispensary
- D. DE WITT BEEKMAN, D.D.S..Associate Professor of Materia Medica and Therapeutics
- FRANK ADELBERT HORNADAY, S. B., M.D.....Associate Professor of Chemistry
- CHARLES TURK BASSETT, D.D.S....Associate Professor in Charge of Dental Infirmary
- ALLEN SCOTT WOLFE, D.D.S..Associate Professor of Crown and Bridge Work and Porcelain
- CADMUS LINDEN ODOR, D.D.S.....Associate Professor in Operative Technics and Comparative Anatomy
- WILLIAM FRANCIS LAWRENCE, D.D.S.....Associate Professor of Prosthetic Technics
- JAMES DUDLEY MORGAN, A.B., M.D....Associate Professor of Medicine, and Clinical Professor of Medicine
- CHARLES FRANKLIN CRAIG, M.D....Associate Professor of Pathology and Bacteriology
- ARTHUR BARTON CRANE, D.D.S...Associate Professor of Oral Surgery

Assistant Professors.

- EDWARD GRANT SEIBERT, M.D....Assistant Professor and Associate in Chemistry and Instructor in Ophthalmology and Associate in Laryngology.
- NEVIL MONROE HOPKINS, Ph.D.....Assistant Professor of Chemistry
- EDWIN ALLSTON HILL, Ph.D.....Assistant Professor of Chemistry
- RAY SMITH BASSLER, Ph.D.....Assistant Professor of Geology

- PERLEY GILMAN NUTTING, Ph.D.....Assistant Professor of Physics
EDWIN VIVIAN DUNSTAN, C.E.....Assistant Professor of Civil
Engineering
OSCAR ALEXANDER MECHLIN, C.E.....Assistant Professor of Civil
Engineering
JOHN WILMER LATIMER, LL.B.....Assistant Professor of Law
OTIS DOW SWETT, M.S., LL.M.....Assistant Professor of Chemistry
CHARLES WARD MORTIMER, B.S., M.E.....Assistant Professor of
Electrical Engineering
FRANK CHARLES STARR, S.B., Assistant Professor of Civil Engineering
BLAINE FREE MOORE, A.B., Assistant Professor of Political Science
EVERETT FRASER, A.B., LL.B., Assistant Professor of Law
HIRAM COLVER MCNEIL, Ph.D., Assistant Professor of Physical
Chemistry
ROBERT RUSS KERN, A.B., Assistant Professor of Economics and
Sociology
LEVI RUSSELL ALDEN, A.M., Assistant Professor of History
HENRY CRAIG JONES, LL.B., Assistant Professor of Law
MERTON LEROY FERSON, A.M., LL.B., Assistant Professor of Law
LESLIE CLEVELAND MCNEMAR, A.B., Assistant Professor of
International Law
- Associates, Lecturers, Instructors, Demonstrators, and Assistants**
JOHN BENJAMIN NICHOLS, M.D., Associate in Medicine and Dietetics
EDWARD EMORY MORSE, M.D., Associate in Obstetrics
HARRY HAMPTON DONNALLY, A.M., M.D., Associate in Medicine and
Clinical Associate in Pediatrics
WILLIAM FRANCIS MATTINGLY SOWERS, A.B., M.D., Associate in Surgery
HENRY RANDALL ELLIOTT, M.D., Associate in Physiology and
Pharmacology
WILBUR R. BRANDENBURG, M.D., Associate in Bacteriology and
Pathology
EDGAR PASQUAL COPELAND, M.D., Clinical Associate in Pediatrics
JOHN T. KELLEY, M.D., Clinical Associate in Obstetrics
WALTER ASHBY FRANKLAND, M.D., Clinical Associate in Medicine
J. LEWIS RIGGLES, M.D., Associate in Anatomy and Gynecology
HENRY JAMES NICHOLS, M.D., Associate in Bacteriology and Pathology
WALTER WATKINS WILKERSON, M.D., Associate in Medicine
FRANK LEECH, M.D., Clinical Associate in Pediatrics
OSCAR PHELPS AUSTIN, Lecturer on Commercial Geography
FREDERICK EUGENE FOWLE, JR., S.B., Lecturer on Astro-Physics
WILLIAM HAMILTON, Ph.D., Lecturer on History
WILLARD STANTON SMALL, Ph.D., Lecturer on Education
STEPHEN ELLIOTT KRAMER, B.S., A.M., Lecturer on Education
JOHN BALL OSBORNE, A.M., Lecturer on Trade Relations and
Consular Service

- PAUL CHARLTON, A.B.....Lecturer on Colonial Administration
 JOHN LEE COULTER, A.M.....Lecturer on Agricultural Economics
 EDWIN WILEY, Ph.D.....Lecturer on English
 JESSE E. POPE, Ph.D.....Lecturer on Agricultural Economics
 CHARLES OSCAR PAULLIN, Ph.D.....Lecturer on Naval History
 WALTER HIBBARD MERRILL, M.D....Instructor in Electro-Therapeutics
 OSCAR ADDISON MACK MCKIMMIE, M.D....Instructor in Laryngology
 and Otology
 HOBART SOUTHWORTH DYE, M.D.....Instructor in Laryngology and
 Otology
 TRUMAN ABBE, M.D.....Instructor in Genito-Urinary Surgery
 JOSEPH LAWN THOMPSON, M.D.....Instructor in Surgery
 ALFRED GEISES BUHRMAN.....Clerk of the Moot Court
 GEORGE MORTON CHURCHILL, A.M.....Instructor in History
 VIRGIL B. JACKSON, M.D.....Instructor in Gynecology
 EDMUND THOMAS MURDAUGH FRANKLIN, M.D....Instructor in Surgery
 WILLIAM J. FRENCH, M.D.....Instructor in Pediatrics
 ARTHUR LEROY HUNT, M.D.....Instructor in Minor Surgery
 CHARLES WILBUR HYDE, M.D.....Instructor in Medicine
 JOHN WINSLOW TAYLOR, D.D.S....Instructor in Prosthetic Technics and
 Demonstrator in the Dental Infirmary
 ADAM KEMBLE, M.D.....Instructor in Gynecology
 SOTHORON KEY, M.D.....Instructor in Medicine
 HOMER GIFFORD FULLER, M.D.....Instructor in Genito-Urinary
 Surgery and Venereal Diseases
 CHARLES GARDNER SHOEMAKER, D.D.S.....Instructor in Operative
 Technics
 HENRY CISSEL YOUNG, D.D.S....Instructor in Prosthetic Technics and
 Demonstrator in the Dental Infirmary
 HERBERT CORNWELL HOPKINS, D.D.S.....Lecturer on Orthodontia
 HAYNER HASKELL GORDON, Ph.D..Instructor in Mechanical Engineering
 ROBERT WILBUR MORSE, S.B.....Instructor in Mechanical Engineering
 CLINE CHIPMAN, M.D.....Instructor in Minor Surgery
 GEORGE HENRY SCHWINN, M.D..Instructor in Psychiatry and Neurology
 BENJAMIN RUSH LOGIE, M.D.....Instructor in Neurology.
 JOHN POTTS FILLEBROWN, M.D..Instructor in Physiology and Surgery
 MARK RITTENHOUSE WOODWARD, E.E.....Instructor in Electrical
 Engineering
 DE WITT CLINTON POOLE, JR., M.Dip....Instructor in Political Science
 CHARLES AUGUSTUS SIMPSON, M.D.....Associate in Dermatology
 ALBERT PERKINS TIBBETS, M.D.....Instructor in Anatomy
 COURSEN BAXTER CONKLIN, M.D.....Instructor in Medicine
 JOSEPH PLASS, A.M.....Instructor in History
 ALEXANDER YELVERTON PEYTON GARNETT, M.D., Instructor in Obstetrics
 HARRY HYLAND KERR, M.D.....Instructor in Surgery

- JOHN BRADFORD BRIGGS, S. B., M.D.....Associate in Bacteriology and Pathology
- MILTON HAHN, M.D.....Instructor in Pediatrics
- HARRY GRANT HODGKINS, A.B.....Instructor in Mathematics
- WILLIAM JOHNSTON MALLORY, M.D.....Instructor in Medicine
- MARION EDWYN HARRISON, D.D.S., Demonstrator in the Dental Infirmary
- CAESARE LOUIS CONSTANTINI, D.D.S.....In Charge of Clinical Instruction in Dentistry
- ARTHUR DURDAN WEAKLEY, D.D.S....Clinical Instructor in Dentistry
- THOMAS LOCKE RUST, D.D.S.....Clinical Instructor in Dentistry
- GEORGE BERTRAM ROPER MACDONALD, D.D.S....Clinical Instructor in Dentistry
- WILLIAM CARL KILLINGER, D.D.S....Clinical Instructor in Orthodontia
- MARK FLORUS FINLEY, D.D.S.....Clinical Instructor in Orthodontia
- ALEXANDER DUNNINGTON COBEY, D.D.S.....Clinical Instructor in Non-Cohesive Gold
- GEORGE MILLER SHARP, D.D.S.....Lecturer on Oral Prophylaxis
- Z. WILBUR ALDERMAN, D.D.S.....Clinical Instructor in Electro-Therapeutics
- ROBERT EDWIN LAYTON, D.D.S.....Clinical Instructor in Dentistry
- CHARLES CLARK AMMERMAN, M.D....Assistant in Ophthalmology to the Dispensary
- JULIA THECKLA MACMILLAN, M. S.....Assistant in Zoology
- WILLIAM WRIGHT FRASER, A.B., B.L.....Lecturer in Mathematics
- ALTON LEWIN KIBLER, Ph.D.....Instructor in Chemistry
- WILLIAM JETT LAUCK, A.B.....Lecturer on Economic Aspects of Immigration
- CHARLES EDWARD VAN OSTRAND, S.M.....Lecturer on Mechanics
- HARVEY LINCOLN CURTIS, Ph.D.....Lecturer on Physics
- CLEMENT LAYTON BOUVE, A.B.....Lecturer on Diplomacy
- ELIJAH WHITE TITUS, Phar.D., M.D.....Instructor in Histology and Embryology, Obstetrician to the University Hospital and Dispensary
- FRANCIS MERRIMAN BARNES, Jr., M.D....Instructor in Phychiatry and Neurology
- FLETCHER BASCOM DRESSLAR, Ph. D.....Lecturer on Education
- RALPH MICHELL LECOMTE, M.D.....Instructor in Pathology and Bacteriology
- CHARLES HARVEY BOWKER, M.D., Ph.D.....Instructor in Anatomy
- CARL LAWRENCE DAVIS, M.D.....Instructor in Anatomy
- MOSES WALTON HENDRY, A.B., LL.B.....Assistant in Greek
- EDWIN HENRY INGERSOLL, S.B.....Assistant in Chemistry
- WALTER EDGAR HANCOCK, A.B.....Assistant in Spanish
- GEORGE TRAVER HARRINGTON, B.S.....Assistant in Botany
- HAROLD KEATS, A.B.....Assistant in History

EDUCATIONAL ORGANIZATION.

The University comprises:

THE DEPARTMENT OF ARTS AND SCIENCES.

The School of Graduate Studies.

Columbian College.

The College of Engineering and Mechanic Arts.

The College of the Political Sciences.

The Teachers College.

THE PROFESSIONAL DEPARTMENTS.

The Department of Law.

The Department of Medicine.

The Department of Dentistry.

THE ASSOCIATED COLLEGES.

National College of Pharmacy.

The College of Veterinary Medicine.

ANNUAL COMMENCEMENT.

The Annual Commencement is held on the Wednesday following the Wednesday nearest the first day of June. Students who have satisfied the requirements for degrees subsequent to the June Commencement may be awarded such degrees privately in October or February.

THE UNIVERSITY LIBRARY.

The University Library comprises (1) the Library of the Department of Arts and Sciences, (2) the Law Library, (3) the Medical Library, and (4) the Library of the College of the Political Sciences. It contains over 44,500 volumes.

In addition to its general collections the Library of the Department of Arts and Sciences contains the library of the late Professor Richard Heinzel, of the University of Vienna, containing 7,200 books and pamphlets in Germanic philology and literature, and cognate branches; the library of the late Professor Curt Wachsmuth, of the University of Leipzig, containing 7,900 books and pamphlets in Greek and Roman literature, archaeology, and history; and the divisional collections in engineering and mechanic arts and in education. It is open from 9 a. m. to 10 p. m.

The Law Library, containing 5,500 volumes, is open from 9 a. m. to 10 p. m.

The Medical Library, containing 3,000 volumes, is open from 9 a. m. to 10.30 p. m.

The Library of the College of the Political Sciences, containing 4,000 volumes in political history, international law, and the social sciences, is open from 9 a. m. to 10 p. m.

PRIVILEGES IN GOVERNMENTAL INSTITUTIONS OPEN TO UNIVERSITY STUDENTS.

In order to promote research and the diffusion of knowledge, the Congress of the United States has made the scientific resources of the Government accessible to students under the terms of the following joint resolution, approved April 12, 1892:

"Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the facilities for research and illustration in the following and any other governmental collections now existing or hereafter to be established in the city of Washington for the promotion of knowledge shall be accessible, under such rules and restrictions as the officers in charge of each collection may prescribe, subject to such authority as is now or may hereafter be permitted by law, to the scientific investigators and to students of any institution of higher education now incorporated or hereafter to be incorporated under the laws of Congress or of the District of Columbia, to wit:

1. Of the Library of Congress.
2. Of the National Museum.
3. Of the Patent Office.
4. Of the Bureau of Education.
5. Of the Bureau of Ethnology.
6. Of the Army Medical Museum.
7. Of the Department of Agriculture.
8. Of the Fish Commission.
9. Of the Botanic Gardens.
10. Of the Coast and Geodetic Survey.
11. Of the Geological Survey.
12. Of the Naval Observatory."



DEPARTMENT OF ART AND SCIENCES.

FACULTY.

- CHARLES HERBERT STOCKTON, LL.D.....PRESIDENT OF THE UNIVERSITY
and Acting Dean of the Department of Arts and Sciences
- THEODORE NICHOLAS GILL, M.D., Ph.D., LL.D...Professor of Zoology
Emeritus
- HOWARD LINCOLN HODGKINS, Ph.D..Dean of the College of Engineer-
ing and Mechanic Arts and Professor of Mathematics
- HERMANN SCHOENFIELD, Ph.D., LL.D.....Professor of German
- CHARLES EDWARD MUNROE, Ph.D., LL.D..Dean of the School of Graduate
Studies and Professor of Chemistry
- GEORGE PERKINS MERRILL, Ph.D..Professor of Geology and Mineralogy
- FRANK WIGGLESWORTH CLARKE, Sc.D..Professor of Mineral Chemistry
- HARVEY WASHINGTON WILEY, M.D., Ph.D., LL.D.....Professor of
Agricultural Chemistry
- WILLIAM ALLEN WILBUR, A.M....Dean of Columbian College and
Professor of English
- CHARLES CLINTON SWISHER, Ph.D., LL.D.....Professor of History
- MITCHELL CARROLL, Ph.D..Professor of Greek and the History of Art
- PAUL BARTSCH, Ph.D.....Professor of Zoology
- GEORGE NEELY HENNING, A.M.....Professor of Romance Languages
- CHARLES WILLIAM AUGUST VEDITZ, LL. B., Ph.D...Acting Dean of the
College of the Political Sciences and Professor of Sociology
- WILLISTON SAMUEL HOUGH, Ph.M....Dean of Teachers College and
Professor of Philosophy
- GEORGE MILLER STERNBERG, M.D., LL.D.,
Professor of Preventive Medicine
- ASAPH HALL, JR., Ph.D.....Professor of Astronomy
- ALBERT MANN, A.M., Ph.D.....Professor of Botany
- HENRY PARKER WILLIS, Ph.D....Dean of the College of the Political
Sciences and Professor of Economics
and Finance (Absent during 1912-13.)
- CHARLES SIDNEY SMITH, Ph.D.....Professor of Greek and Latin
- FREDERICK FULLER RUSSELL, M.D.....Professor of Pathology and
Bacteriology
- THOMAS MALCOLM PRICE, Ph.D..Professor of Physiological Chemistry
- WILLIAM CARL RUEDIGER, Ph.D..Professor of Educational Psychology
- ALFRED FRANCIS WILLIAM SCHMIDT, A.M.....Professor of German

- WILLIS LUTHER MOORE, Sc.D., LL.D.....Professor of Practical
Meteorology
- WILLIAM JACKSON HUMPHREYS, C.E., Ph.D.....Professor of
Meteorological Physics
- CHARLES NOBLE GREGORY, A.M., LL.D.....Professor of Law
- NEVIL MONROE HOPKINS, Ph.D.....Assistant Professor of Chemistry
- EDWIN ALLSTON HILL, Ph.D.....Assistant Professor of Chemistry
- RAY SMITH BASSLER, Ph.D.....Assistant Professor of Geology
- PERLEY GILMAN NUTTING, Ph.D.....Assistant Professor of Physics
- EDWIN VIVIAN DUNSTAN, C.E.....Assistant Professor of Civil
Engineering
- OSCAR ALEXANDER MECHLIN, C.E.....Assistant Professor of Civil
Engineering
- JOHN WILMER LATIMER, LL.B.....Assistant Professor of Law
- OTIS DOW SWETT, M.S., LL.M.....Assistant Professor of Chemistry
- CHARLES WARD MORTIMER, B.S., M.E.....Assistant Professor of
Electrical Engineering
- FRANK CHARLES STARR, S.B..Assistant Professor of Civil Engineering
- BLAINE FREE MOORE, A.B...Assistant Professor of Political Science
- HIRAM COLVER MCNEIL, Ph.D.....Assistant Professor of Physical
Chemistry
- ROBERT RUSS KERN, A.B.....Assistant Professor of Economics and
Sociology
- LEVI RUSSELL ALDEN, A.M.....Assistant Professor of History
- LESLIE CLEVELAND MCNEMAR, A.B.....Assistant Professor of
International Law
- OSCAR PHELPS AUSTIN.....Lecturer on Commercial Geography
- FREDERICK EUGENE FOWLE, JR., S.B.....Lecturer on Astro-Physics
- WILLIAM HAMILTON, Ph.D.....Lecturer on History
- WILLIAM STANTON SMALL, Ph.D.....Lecturer on Education
- STEPHEN ELLIOTT KRAMER, B.S., A.M.....Lecturer on Education
- JOHN BALL OSBORNE, A.M.....Lecturer on the Consular Service
- PAUL CHARLTON, A.B.....Lecturer on Colonial Administration
- JOHN LEE COULTER, A.M.....Lecturer on Agricultural Economics
- EDWIN WILEY, Ph.D.....Lecturer on English
- JESSE E. POPE, Ph.D.....Lecturer on Agricultural Economics
- CHARLES OSCAR PAULIN, Ph.D.....Lecturer on Naval History
- GEORGE MORTON CHURCHILL, A.M.....Instructor in History
- HAYNER HASKELL GORDON, Ph.D.....Instructor in Mechanical
Engineering
- ROBERT WILBUR MORSE, S.B....Instructor in Mechanical Engineering
- MARK RITTENHOUSE WOODWARD, E.E.....Instructor in Electrical
Engineering
- DE WITT CLINTON POOLE, M.Dip.....Instructor in Political Science
- JOSEPH PLASS, A.M.....Instructor in History

Faculty of School of Graduate Studies.

Faculty of Columbian College.

Faculty of College of Engineering and Mechanic Arts.

Faculty of College of the Political Sciences.

Faculty of Teachers College.

President Stockton, Dean Hough, Professors Hodgkins, Wilbur Swisher, Bartsch, Smith, Ruediger, Schmidt; Assistant Professors Moore, Kern; Messrs. Small, Kramer, Dresslar.

SCHOOL OF GRADUATE STUDIES.

HIGHER DEGREES.

The higher degrees conferred in course by the University in this Division of the Department of Arts and Sciences are Master of Arts (A.M.), Master of Science (M.S.), Civil Engineer (C.E.), Electrical Engineer (E.E.), Mechanical Engineer (M.E.), and Doctor of Philosophy (Ph.D.).

ADMISSION.

Candidates for admission to courses for higher degrees must make application to the Dean of the School of Graduate Studies on application blanks, which may be obtained of him or of the Secretary of the University. Candidates must present the diplomas they hold, or certificates that they have received such diplomas, together with catalogues of the institutions from which they hold their degrees and certificates of their course of study at such institutions. All such applications should be accompanied by testimonials as to character and scholarship.

DEGREES OF MASTER OF ARTS AND MASTER OF SCIENCE.

To be admitted to candidacy for the Master's degree a student must have completed a liberal undergraduate course of study such as is required by colleges of good standing antecedent to the baccalaureate degree. The Faculty of Graduate Studies reserves the right to decide in all cases whether the antecedent training fulfills the requirements. Moreover, the course of study pursued must have been such as to qualify the candidates for pursuing the subjects chosen for the Master's or other higher degree sought. In seeking admission the applicant must state whether he desires to obtain the Specialist degree or the Liberal Culture degree.

The Specialist degree is designed for students who propose to proceed toward the Doctor of Philosophy degree. Such candidates are required to complete one major and two minor subjects selected from properly correlated University subjects approved by the Faculty upon recommendation of the professors in charge and to present a satisfactory dissertation. Only one of the minor topics may be selected from the University subject which includes his major topic. Work for which this degree has been awarded may be credited as one year of work toward the Doctor of Philosophy degree, provided that it be in the same field of work.

The Liberal Culture degree is designed for students who do not intend to specialize in their work. Such candidates are required to complete

three full courses of studies, of two or three hours each, distributed among three University subjects, not more than six hours of which shall be given to any one subject. These subjects must have the approval of the Faculty on the recommendation of the professors in charge. The candidate must also present a thesis in the field to which his major subject belongs.

A candidate for a Master's degree must pass at least one full year in residence and study at this University, and no work done by him for the Bachelor's degree shall be counted again for a higher degree.

HIGHER DEGREES IN ENGINEERING.

To be admitted to candidacy for higher degrees in Engineering a student must have completed a liberal undergraduate course of study such as is required by colleges of good standing antecedent to the baccalaureate degree in Engineering, and of such a character as to fit him to pursue to advantage the study of advanced engineering topics. The Faculty of Graduate Studies reserves the right to decide in all cases whether the antecedent training fulfills the requirements. Moreover, the courses of study pursued for the Bachelor's degree must be approved by the Faculty as qualifying the candidate for pursuing the chosen line of study for the degree sought.

A candidate for a degree in Engineering shall pass at least one full year of residence and study at this University, sustain satisfactory examinations on the studies pursued, and present an acceptable thesis, together with a bibliography. Three full courses is the minimum required as constituting a full year's work. The courses chosen must be passed upon by the Faculty of Graduate Studies and have the approval of the professors under whom they are to be taken.

DEGREE OF DOCTOR OF PHILOSOPHY.

The degree of Doctor of Philosophy is conferred upon a student who has pursued specialized courses in University Subjects; engaged in original research in certain of the various departments of law, letters, or science under university auspices, for a period of not less than three years; has submitted an acceptable thesis and has met all the requirements prescribed. The degree is given for high attainments and proved ability to do research work in some special branch of knowledge, as determined by the various tests applied.

Before a student can be admitted to candidacy for this degree he must give evidence that he has completed a liberal undergraduate course of academic study such as is required by colleges of good standing antecedent to the baccalaureate degree, and of such a character as to fit him to pursue to advantage researches in the field chosen for

graduate work. The Faculty of Graduate Studies reserves the right to decide in all cases whether the antecedent training fulfills the requirements. The applicant may be credited with graduate work done at other universities, provided such work is shown to be of grade similar to that required here, but one year, preferably the last, must be spent in residence at this University and the other requirements of the degree as prescribed must be fulfilled.

The candidate for the Doctor's degree shall offer three topics from the University Subjects—one major and two collateral minor studies, one of which minors may be in the subject which includes the major topic,—the combination to be approved by the Faculty of Graduate Studies. These must be pursued under the guidance of a committee consisting of the professors in charge of the University Subjects in which the studies are pursued, with the professor in the major subject as chairman. This committee will determine his division of time, study, and research among the major and minor topics, but in general the major topic should be pursued during the whole time devoted to graduate work, and each minor topic during at least one year. The candidate shall pass satisfactory examinations upon the three subjects selected. He must satisfy the Faculty that he can read understandingly in the original, French and German works pertaining to his special field. In order to graduate the candidate must possess a broad acquaintance with his major subject and he must present a thesis upon some topic approved by the professor in charge of his major subject, which shall be a contribution to knowledge and which shall be accompanied by an adequate bibliography.

EXAMINATIONS.

Candidates must pass written examinations upon all their topics. The examinations upon the minor topics may be taken at the close of the respective years in which these topics are completed, or later, at the discretion of the examiner. The final written examination on the major topic shall cover the candidate's entire university work, and shall be given when the professor of that subject is satisfied that the student has taken sufficient work to warrant such an examination being taken. If a candidate has satisfactorily passed his final written examination, he may be permitted to complete his thesis away from the University.

DEFENSE OF THE THESIS.

Before a candidate can be recommended to the Board of Trustees for the Doctor of Philosophy degree, he must have successfully defended his thesis in public before a Board of Experts not officially connected with the University. Before the candidate can be permitted to undertake the defense of his thesis, the thesis must have been favorably reported on and recommended for defense by the professor

having supervision over the candidate's major topic, and by a co-referee appointed from the Faculty of Graduate Studies.

The subjects from which the candidate's selection may be made, as the Faculty may determine in each case, are as follows:

Agriculture, Applied Mathematics, Architecture, Astronomy, Astrophysics, Bacteriology, Botany, Chemistry, Classical Archaeology, Economics, Education, Civil Engineering, Electrical Engineering, Hydraulic Engineering, Mechanical Engineering, English, Ethics, Geology and Mineralogy, Germanic Languages and Literature, Greek Language and Literature, Histology and Embryology, History, History of Art, International Law and Diplomacy, Latin Language and Literature, Law, Mathematics, Meteorology, Pathology, Philosophy, Physics, Physiology and Pharmacology, Political Sciences, Preventive Medicine, Psychology, Romance Language and Literature, Semitic Languages and Literature, Sociology, Zoology.

REGULATIONS REGARDING THESES.

Theses must be presented to the Dean not later than May 1 for graduation in June. They must be typewritten on official thesis paper which may be obtained from the Treasurer of the University. The thesis will be presented by the Dean to the Faculty, and by it referred to the Chairman of the Committee on the candidate and the co-referee appointed from and by the Faculty for examination as to its merits when, on a favorable report by them, it may be defended in the Public Disputation. After their acceptance, theses, with their accompanying drawings, are the property of the University, and must be deposited in the University archives, but the authors of them are permitted to make copies. The candidate shall arrange, to the satisfaction of the Faculty, to print his thesis within one year after the degree is granted, under the supervision of the professor in charge of his major subject, and shall present one hundred copies to the University, to be distributed among institutions of learning.

DOCTORATE DISPUTATIONS.

The Twentieth Doctorate Disputation was held publicly in University Hall, October 16, 1911. The thesis that was successfully defended, the candidate and the members of the board of experts were as follows:

Thesis: The Humanistic School of Deventer and Its Offshoots. By

REV. FRANCIS XAVIER ZERHUSEN, A.B., 1906, Notre Dame University. Before REV. FRANK SEWALL, S.T.D.; WILLIAM MACON COLEMAN, A.M., Ph.D.; ANDREW WILSON, D.C.L., Ph.D. Professor HERMANN SCHOENFELD, Ph. D., LL.D., presiding.

The Twenty-first Doctorate Disputation was held publicly in the Medical Building, May 20, 1912. The theses successfully defended, the candidates and the members of the boards of experts were as follows:

Thesis: Mercury Fulminate. By ALTON LEWIN KIBLER, A.B., 1904, Randolph Macon College; M.S., 1909, The George Washington University. Before HARVEY W. WILEY, Ph.D., LL.D.; EDWIN A. HILL, Ph.D.; HIRAM COLVER McNEIL, Ph.D. Professor FRANK WIGGLESWORTH CLARKE, Sc.D., presiding.

Thesis: Mineralogical Methods in Soil Investigation. By WILLIAM JOHN McCAUGHEY, B.S., 1906, University of Pennsylvania. Before FRANK K. CAMERON, Ph.D., FRED E. WRIGHT, Ph.D.; R. S. BASSLER, Ph.D.; THOMAS M. PRICE, Ph.D. Professor GEORGE P. MERRILL, Ph.D., presiding.

THE COLLEGES.

The College session of 1912-13 begins Wednesday, September 25, 1912.

The Colleges are open to men and women.

ADMISSION.

Every applicant for admission is required to present a testimonial of good character and also a certificate of standing and regular dismissal from the school or college which he has attended or from the tutor with whom he has studied.

Candidates for admission to the Freshman Class may present certificates of admission or take an examination in the required subjects. Certificates, in lieu of any or all examinations, will be accepted from schools whose work is attested by well-prepared students admitted to the University in previous years, and from schools that present evidence of affording adequate preparation in the required subjects. The Secretary of the University will, on application, furnish certificate blanks to the principals of such accredited schools.

The certificates of the College Entrance Examination Board will be accepted.

The requirement for admission is a four-year high-school course, or its equivalent, amounting to fifteen "units." For prescribed studies see the specifications of each college.

A unit represents a year's study in any subject in a secondary school, constituting approximately a quarter of a full year's work.

ENTRANCE EXAMINATIONS.

The regular examinations for admission are held in May.

The following is the schedule for 1913:

Tuesday, May 20, 1913.

Elementary Latin	9.00-11.00
Plane Geometry	11.00- 1.00
Physics	2.00- 4.00
Greek	2.00- 5.00

Wednesday, May 21.

Elementary Algebra	9.00-11.00
Elementary French	11.00- 1.00
Elementary German	2.00- 4.00
Ancient History	4.00- 6.00

Thursday, May 22.

Plane Trigonometry	9.00-11.00
Advanced French, Advanced German	11.00- 1.00
English	2.00- 5.00

Friday, May 23.

Advanced Algebra	9.00-11.00
Solid Geometry	11.00- 1.00
Chemistry; Advanced Latin.....	2.00- 4.00

Subjects offered for admission, but not named in the schedule of examinations, will be arranged for as occasion arises.

Unless admitted by certificate, every undergraduate candidate for a degree is required to pass an examination.

Candidates from the Washington high schools for the Kendall and the University Scholarships will be examined on only nine units. These nine units upon which the examination will be given are the following: the specified subjects—English (three units), Mathematics (two units), and one other language (two units); the remaining two units may be in language, history, mathematics, physics, chemistry, biology—as the candidate shall elect. The remainder of the fifteen units must be certified from the high schools.

DEFINITION OF REQUIREMENTS.**ENGLISH.**

(Three units.)

The requirements in English are those recommended by the Conference on Uniform Entrance Requirements in English. These recommendations are as follows:

Preparation in English has two main objects: (1) command of correct and clear English, spoken and written; (2) ability to read with accuracy, intelligence, and appreciation.

English Grammar and Composition.

The first object requires instruction in grammar and composition. English grammar should ordinarily be reviewed in the secondary school, and correct spelling and grammatical accuracy should be rigorously exacted in connection with all written work during the four years. The

principles of English composition governing punctuation, the use of words, paragraphs, and the different kinds of whole composition, including letter-writing, should be thoroughly mastered; and practice in composition, oral as well as written, should extend throughout the secondary school period. Written exercises may well comprise narration, description, and easy exposition and argument based upon simple outlines. It is advisable that subjects for this work be taken from the student's personal experience, general knowledge, and studies other than English, as well as from his reading in literature. Finally, special instruction in language and composition should be accompanied by concerted effort of teachers in all branches to cultivate in the student the habit of using good English in his recitations and various exercises, whether oral or written.

Literature.

The second object is sought by means of two lists of books, headed respectively, *reading* and *study*, from which may be framed a progressive course in literature covering four years. In connection with both lists the student should be trained in reading aloud and be encouraged to commit to memory some of the more notable passages, both in verse and in prose. As an aid to literary appreciation he is further advised to acquaint himself with the most important facts in the lives of the authors whose works he reads and with their place in literary history.

1. *Reading.*—The aim of this course is to foster in the student the habit of intelligent reading and to develop a taste for good literature by giving him a first-hand knowledge of some of its best specimens. He should read the books carefully, but his attention should not be so fixed upon details that he fails to appreciate the main purpose and charm of what he reads.

With a view to large freedom of choice, the books provided for reading are arranged in the following groups, from which at least ten units* are to be selected, two from each group:

* Each unit is set off by semicolons.

(a) The Old Testament, comprising at least the chief narrative episodes in Genesis, Exodus, Joshua, Judges, Samuel, Kings; and Daniel; together with the books of Ruth and Esther; the Odyssey, with the omission, if desired, of Books I, II, III, IV; V; XV; XVI; XVII; the Iliad, with the omission, if desired, of Books XI, XIII, XIV; XV; XVII, XXI; Virgil's *Æneid*. The Odyssey, Iliad, and *Æneid* should be read in English translations of recognized literary excellence.

For any unit of this group a unit from any other group may be substituted.

(b) Shakespeare's *Merchant of Venice*; *Midsummer Night's Dream*; *As You Like It*; *Twelfth Night*; *Henry the Fifth*; *Julius Caesar*.

(c) Defoe's *Robinson Crusoe*, Part I; Goldsmith's *Vicar of Wakefield*; either Scott's *Ivanhoe* or Scott's *Quentin Durward*; Hawthorne's *House of the Seven Gables*; either Dickens's *David Copperfield* or Dicken's *Tale of Two Cities*; Thackeray's *Henry Esmond*; Mrs. Gaskell's *Cranford*; George Eliot's *Silas Marner*; Stevenson's *Treasure Island*.

(d) Bunyan's *Pilgrim's Progress*, Part I; The *Sir Roger de Coverley Papers* in the *Spectator*; Franklin's *Autobiography* (condensed); Irving's *Sketch Book*; Macaulay's *Essays on Lord Clive and Warren Hastings*; Thackeray's *English Humourists*; Selections from *Lincoln*, including at least the two Inaugurals, the *Speeches in Independence Hall* and at *Gettysburg*, the *Last Public Address*, and *Letter to Horace Greeley*, along with a brief memoir or estimate; Parkman's *Oregon Trail*; either Thoreau's *Walden* or Huxley's *Autobiography* and selections from *Lay Sermons*, including the addresses on *Improving Natural Knowledge*, *A Liberal Education*, and *A Piece of Chalk*; Stevenson's *Inland Voyage and Travels with a Donkey*.

(e) Palgrave's *Golden Treasury* (First Series), Books II and III, with especial attention to Dryden, Collins, Gray, Cowper, and Burns; Gray's *Elegy in a Country Churchyard* and Goldsmith's *Deserted Village*; Coleridge's *Ancient Mariner* and Lowell's *Vision of Sir Launfal*; Scott's *Lady of the Lake*; Byron's *Childe Harold*, Canto IV, and *Prisoner of Chillon*; Palgrave's *Golden Treasury* (First Series), Book IV, with especial attention to Wordsworth, Keats, and Shelley; Poe's *Raven*, Longfellow's *Courtship of Miles Standish*, and Whittier's *Snow Bound*; Macaulay's *Lays of Ancient Rome* and Arnold's *Sohrab and Rustum*; Tennyson's *Gareth and Lynette*, *Lancelot and Elaine*, and the *Passing of Arthur*; Browning's *Cavalier Tunes*, *The Lost Leader*, *How They Brought the Good News from Ghent to Aix*, *Home Thoughts from Abroad*, *Home Thoughts from the Sea*, *Incident of the French Camp*, *Herve*, *Riel*, *Pheidippides*, *My Last Duchess*, *Up at a Villa*—*Down in the City*.

2. *Study*.—This part of the requirement is intended as a natural and logical continuation of the students' earlier reading, with greater stress laid upon form and style, the exact meaning of words and phrases, and the understanding of allusions. For this close reading are provided a play, a group of poems, an oration, and an essay, as follows:

Shakespeare's *Macbeth*; Milton's *L'Allegro*, *Il Penseroso*, and *Comus*; either Burke's *Speech on Conciliation with America* or both Washington's *Farewell Address* and Webster's *First Bunker Hill Oration*; either Macaulay's *Life of Johnson* or Carlyle's *Essay on Burns*.

Examination.

However accurate in subject-matter, no paper will be considered satisfactory if seriously defective in punctuation, spelling, or other essentials of good usage.

The first part of the examination will be upon ten units chosen in accordance with the plan described earlier, from the lists headed *reading*; and it may include also questions upon grammar and the simpler principles of rhetoric, and a short composition upon some topic drawn from the student's general knowledge or experience. On the books prescribed for reading, the form of the examination will usually be the writing of short paragraphs on several topics which the candidate may choose out of a considerable number. These topics will involve such knowledge and appreciation of plot, character-development, and other qualities of style and treatment as may be fairly expected of boys and girls. In grammar and rhetoric, the candidate may be asked specific questions upon the practical essentials of these studies, such as the relation of the various parts of a sentence to one another, the construction of individual words in a sentence of reasonable difficulty, and those good usages of modern English which one should know in distinction from current errors.

The second part of the examination will include composition and those books comprised in the list headed *study*. The test in composition will consist of one or more essays, developing a theme through several paragraphs; the subjects will be drawn from the books prescribed for *study*, from the candidate's other studies, and from his personal knowledge and experiences quite apart from reading. For this purpose the examiner will provide several subjects, perhaps five or six, from which the candidate may make his own selections. The test on the books prescribed for study will consist of questions upon their content, form, and structure, and upon the meaning of such words, phrases, and allusions as may be necessary to an understanding of the works and an appreciation of their salient qualities of style. General questions may also be asked concerning the lives of the authors, their other works, and the periods of literary history to which they belong.

Elementary (Two units).

LATIN.

- a. i. Latin Grammar: The inflections; the simpler rules for composition and derivation of words; syntax of cases and the verb; structure of sentences in general, with particular regard to relative and conditional sentences, indirect discourse, and the subjunctive.
- ii. Latin Prose Composition: Translation into Latin of detached sentences and easy continuous prose based on Caesar.
- b. Caesar: Any four books of the Gallic War, preferably the first four.

Advanced (Two units).

- a. Cicero: Any six orations from the following list, but preferably the first six mentioned:

The four orations against Catiline, Archias, the Manilian Law, Marcellus, Roscius, Milo, Sestius, Ligarius, the Fourteenth Philippic.

- b. Virgil: The first six books of *Æneid*.

- c. Advanced Prose Composition, consisting of continuous prose of moderate difficulty based on Cicero.

- d. Sight Translation, based on prose of no greater difficulty than the easier portions of Cicero's orations.

GREEK.

Elementary (Two units).

- a. i. Greek Grammar: The topics for the examination in Greek grammar are similar to those detailed under Latin grammar.

- ii. Greek Prose Composition, consisting principally of detached sentences to test the candidate's knowledge of grammatical constructions.

The examination in grammar and prose composition will be based on the first two books of Xenophon's *Anabasis*.

- b. Xenophon: The first four books of the *Anabasis*.

Advanced (One unit).

- a. Homer: The first three books of the *Iliad* (omitting II, 494, to end).

- b. Sight Translation, based on prose of no greater difficulty than Xenophon's *Anabasis*.

FRENCH.

Elementary (Two units). Candidates in Elementary French must have a good knowledge of the essential parts of grammar, with stress on pronouns and on regular verbs and the common irregular verbs. They must know the principles of pronunciation; must be able to translate simple English sentences or easy connected prose into French, and to translate accurately ordinary modern French prose. Candidates must have translated not less than 450 duodecimo pages by at least four different authors, of which amount at least one-third must be history. Candidates must have had a two-years' course of five periods per week.

Advanced (Two units). Candidates in Advanced French must have partly translated, partly read, in addition to the requirements for Elementary French, at least 1,000 pages of difficult French of several different authors, including history, fiction, drama, and poetry. Candidates must have had a four-years' course of five periods per week.

Fraser and Squair's French Grammar or Grandgent's Essentials of French Grammar is recommended.

SPANISH.

(Two units.)

Candidates in Spanish must have a good knowledge of grammar, including syntax, with stress on pronouns and verbs, regular and irregular. They must know the principles of pronunciation. They must be able to translate simple English sentences or easy connected prose into Spanish, and to translate accurately fairly difficult modern Spanish prose and verse. Candidates must have translated not less than 500 pages by at least four different authors, of which amount at least one-fourth must be history or drama. Candidates must have had a two-years' course of five periods per week.

GERMAN.

Elementary (Two units). Candidates in Elementary German must have had a two-years' course of five periods a week. They must be able to read fluently at sight and to translate easy narrative prose and poetry. An accurate knowledge of an elementary German grammar is requisite, to be tested by the translation into German of some fifteen sentences. About 300 pages of graduated narrative prose, one short play, and such poetry as is usually found in a First Reader will be considered an adequate preparation.

Advanced (Two units). Candidates in Advanced German must have had a four-years' course of five periods a week. They should be well trained in the syntactical laws of the language, have read about 800 pages of good literature in prose, preferably such prose works as are given in the Report of the Committee of Twelve of the Modern Language Association, and poetry, especially dramas by Lessing, Schiller, and Goethe, and studied an elementary history of German literature. German composition should comprise a number of short themes upon assigned historical or literary topics, lives of the authors read, etc.

HISTORY.

In this subject special importance is attached to preparation in geography.

Ancient (One unit).

- a. Greek History, through the Roman Conquest; as much as is contained in Myer's, Bottsford's, or West's History of Greece.
- b. Roman History; as much as is contained in Allen's, Bottsford's or West's History of the Roman People.

Mediaeval and Modern European History (One unit). As much as is contained in Myer's *History of Mediaeval and Modern Europe*.

English History (One unit). As much as is contained in Larned's or Cheyney's *History of England*.

American History with the Elements of Civil Government (One unit). As much as is contained in Fiske's *History of the United States*, and Fiske's *Civil Government*.

MATHEMATICS.

Elementary Algebra (One unit).

i. *Algebra to Quadratics:*

The four fundamental operations for rational algebraic expressions, factoring, highest common factor, lowest common multiple, complex fractions, the solution of equations of the first degree containing one or more unknown quantities, radicals, including the extraction of the square root of polynomials and numbers, and fractional and negative exponents.

ii. *Quadratics, etc:*

Quadratic equations and equations containing one or more unknown quantities that can be solved by the methods of quadratic equations, problems depending upon such equations, ratio and proportion, and the binominal theorem for positive integral exponents.

Advanced Algebra (One-half unit).

i. *Progressions, etc.:*

The progressions, the elementary treatment of permutations and combinations, and the use of four and five place tables and logarithms.

ii. *Series, etc.:*

Undetermined coefficients, the elementary treatment of infinite series, the binominal theorem for fractional and negative exponents, and the theory of logarithms.

iii. *Theory of equations:*

Determinants coefficients, the elementary treatment of including Horner's method for solving numerical equations.

Plane Geometry (One unit).

General text propositions, including the solution of simple original exercises and numerical problems.

Solid Geometry (One-half unit).

Properties of straight lines and planes, of dihedral and polyhedral angles, of projections, of polyhedrons, including prisms, pyramids, and the regular solids; of cylinders, cones, and spheres; of spherical triangles and the measurement of surfaces and solids.

Plane Trigonometry (One-half unit).

The definitions and relations of the six trigonometrical functions as ratios, proof of important formulas, theory of logarithms and use of tables, solution of right and oblique plane triangles.

PHYSICS.

(One unit.)

It is recommended that the candidate's preparation should include:

- a. Individual laboratory work, comprising at least thirty-five exercises well distributed over the subjects of physics.
- b. Instruction by lecture-table demonstrations.
- c. The study of at least one standard text-book, supplemented by the use of many and varied numerical problems. The metric system should be familiar to the student.

The laboratory note-book must be submitted for inspection, whether the candidate is admitted on certificate or by examination.

CHEMISTRY.

(One unit.)

The candidate's preparation in chemistry should include:

- a. Individual laboratory work, comprising at least forty experiments of a character analogous to those set forth by the College Entrance Examination Board. The laboratory note-book must be submitted for inspection.
- b. Instruction by lecture-table demonstrations.
- c. The study of at least one modern text-book.

Requirements.—The ground to be covered should include the following: The chief physical and chemical characteristics, the isolation and the recognition of the following elements and the preparation and study of their principal compounds: *Oxygen, hydrogen, carbon, nitrogen, chlorine, bromine, iodine, fluorine, sulphur*, phosphorus, silicon, potassium, *sodium*, calcium, magnesium, *zinc*, copper, mercury, silver, aluminium, *lead*, tin, *iron*, manganese, chromium.

The more detailed study should be confined to the italicized *elements* (as such) and to a restricted list of compounds, such as water, hydrochloric acid, carbon monoxide, carbon dioxide, oxides of nitrogen, nitric acid, ammonia, sulphur dioxide, sulphuric acid, hydrogen sulphide, sodium hydroxide, ammonium hydroxide.

Attention should be given to the atmosphere (constitution and relation to animal and vegetable life), flame, acids, bases, salts, oxidation and reduction, crystallization, combining proportions by weight and volume, calculations founded on these and on Boyle's and Charles' laws, sym-

bols, formulas, equations and nomenclature, atomic theory, atomic weights, nascent state, natural groupings of the elements, solution (solvents and solubility of gases, liquids, and solids), strength of acids and bases, conservation and dissipation of energy, chemical energy and electrolysis, and of valence, electrolytic dissociation, osmosis, mass action in a very elementary way. Chemical terms should be clearly understood, and the student should be able to illustrate and apply the ideas that they embody. The theoretical topics are not intended to form separate subjects of study, but to be taught only so far as is necessary for the correlation and explanation of the experimental facts. The facts should be given as examples from various classes and not as isolated things.

ADDITIONAL SUBJECTS.

Certificates will be accepted in botany, zoology, physiology, physiography, political economy, drawing, music, and other accredited subjects in secondary schools.

Manual-training High School Subjects.

Technical subjects in manual-training high schools, or schools of similar grade, when duly certified, may be credited as follows:

Shopwork (not exceeding two units), domestic science and domestic art (not exceeding two units).

Business High School Subjects.

Commercial subjects in business high schools or schools of similar grade, when duly certified, may be credited as follows:

Accounting and Finance. (One unit.)

Bookkeeping. (Two units.)

Business Organization. (One unit.)

Commercial law. (One unit.)

Government and Industrial Problems. (One-half unit.)

Commercial History. (One-half unit.)

Commercial and Physical Geography. (One-half unit.)

ADMISSION TO ADVANCED STANDING.

Candidates for admission to advanced classes in any department are examined in all indispensable preliminary studies.

Due credit is given for properly certified courses of study pursued in other colleges and universities.

SPECIAL STUDENTS.

All the courses of instruction are open to students of suitable age and attainments who wish, without reference to any degree, to pursue special studies. Candidates must show that they are familiar with the subjects preliminary to the studies which they wish to pursue. Persons are allowed to register as auditors for the regular fees without being required to take active part in the exercises or to pass examinations, but no credit will be allowed for such attendance.

SCHOLARSHIPS AND PRIZES.

Applications for scholarships should be filed with the Dean of the College in which the student is registered not later than September fifteenth. All scholarships except the Kendall Scholarship and the University Scholarships are awarded for one year only but they may be renewed. Any student holding a scholarship who fails to obtain a general average of 85 per cent on the work of any term, or whose deportment is unsatisfactory, will be reported to the President's Council, and in the absence of extenuating circumstances the scholarship will be revoked. All designations to scholarships are awarded by the President's Council on the recommendation of a Dean.

Scholarships for Competition.

The University offers the following scholarships to be awarded on competitive examination given at the time of the May entrance examinations. Holders of these scholarships are expected to pursue a regular course in one of the colleges of the Department of Arts and Sciences. No scholarship is awarded to a candidate whose examination average is below 80 per cent.

KENDALL SCHOLARSHIP.—The Kendall Scholarship, founded by the late Hon. Amos Kendall, is annually conferred on that member of the graduating class of any of the Washington High Schools who attains the highest average in the entrance examinations. This scholarship continues throughout the undergraduate course, and the student holding it pays only the matriculation, library, laboratory, and graduation fees.

UNIVERSITY SCHOLARSHIPS.—The University offers also six scholarships, to be awarded annually to members of the graduating classes of any of the Washington High Schools. These scholarships continue throughout the undergraduate course, and students holding them pay only the matriculation, library, laboratory, and graduation fees.

Scholarships for Assignment.

DAVIS SCHOLARSHIP.—This is the income of a fund of one thousand dollars given to the University in October, 1869, by Hon. Isaac Davis, of Massachusetts.

MARY LOWELL STONE SCHOLARSHIP.—This scholarship was founded by a woman in memory of a woman student of science. It consists of a fund of two thousand dollars, the income from which is to be paid to needy women students of science in the University.

MARIA M. CARTER SCHOLARSHIP.—This is the income of a fund of one thousand dollars given to the University in 1871 by Mrs. Maria M. Carter.

FARNHAM SCHOLARSHIP.—This is the income of a fund of one thousand dollars given to the University in 1871 by Mrs. Robert Farnham.

WITHINGTON SCHOLARSHIP.—This scholarship was founded in 1830, by the New York Baptist Theological Seminary, to be known as the Withington scholarship. It has an annual stipend in tuition fees of sixty dollars.

WALKER SCHOLARSHIP.—This scholarship was founded in 1824 by William Walker, Esq., of Putnam County, Georgia. It carries an annual stipend of one hundred dollars in tuition fees available for an undergraduate intending to enter the Christian ministry.

MOREHOUSE SCHOLARSHIP.—This scholarship was founded by Mr. A. Morehouse, of Washington, D. C., in 1861. It carries an annual stipend of sixty dollars in tuition fees available for an undergraduate intending to enter the Christian ministry.

HENRY HARDING CARTER SCHOLARSHIPS.—These scholarships, founded by Mrs. Maria M. Carter in memory of her husband, Henry Harding Carter, consist of four scholarships of the annual value of fifty dollars each, and may be awarded to deserving students who are preparing for the civil engineering profession.

ADMIRAL POWELL SCHOLARSHIPS.—The Admiral Powell Scholarships were founded by the late Admiral Powell, U. S. Navy. The income from this endowment is for the "free education of such young men as may desire to take advantage of the said endowment by way of their preparation for entrance into the Naval Academy at Annapolis, Maryland, or such as may fit them to become mates or masters in the Merchant Marine Service of the United States," and of "such apprentices

as, having filled their time in the great steam manufactory establishments of the country, may apply for appointment from civil life in the Steam Engineer Department of the United States Navy." The number of scholarships awarded each year will be determined by the income from the endowment. Each scholarship will entitle the beneficiary to free tuition for one year. Such special courses of study are offered to each student as will give him the instruction needed to accomplish the purpose for which he is awarded the scholarship.

These scholarships are especially applicable to those who intend to come up for examination as warrant officers in the Engineer Department of the Navy, or to those who desire to fit themselves for responsible positions in the mercantile marine.

The subjects to be taken by a student will vary according to his preparation and according to the purpose for which he has been awarded the scholarship, but a year's work can be selected from the following topics:

	Hours.
Navigation and Nautical Astronomy.....	6
Algebra and Geometry.....	3
Trigonometry	1½
Mechanical and Machine Drawing	4
English	3
French	3
German	3
Spanish	3
International Law	1
Commercial Geography	1
Admiralty Law	½
Boilers and Power Plants.....	3
Measurement of Power.....	2
Electricity	3
Electrical Engineering	6

MINISTERIAL AID.—The University authorizes the remission of a stated amount in tuition fees, to be called Ministerial Aid, which may be given to students, resident in the District of Columbia or its immediate vicinity, in the regular courses of Columbian College, preparing for the ministry and not yet ordained. Any student receiving Ministerial Aid may be called upon for clerical or like work to the extent of not more than one hour a week for every ten dollars of tuition remitted, and of not more than four hours in any one week.

UNIVERSITY AID.—The University authorizes the remission of a stated amount in tuition fees, to be called University Aid, which may be given to undergraduate students in regular courses in the Department of Arts

and Sciences, financially dependent on parents, who are residents of the District of Columbia or its immediate vicinity and whose circumstances warrant pecuniary assistance. Any student receiving University Aid may be called upon for clerical or like work to the extent of not more than one hour a week for every ten dollars of tuition remitted, and for not more than four hours in any one week.

COLUMBIAN WOMEN LOAN FUND.

The Columbian Women have established a fund from which money is loaned to women students, preference being given to women who have already begun work in the University and who need assistance in continuing it. The administration of the fund remains with the Columbian Women.

PRIZES.

Only candidates for degrees may compete for these prizes.

STAUGHTON AND ELTON PRIZES.—The Staughton Prize, for excellence in the Latin Language and Literature, and the Elton Prize, for excellence in the Greek Language and Literature, founded by the Rev. Romeo Elton, D.D., of Exeter, England, consist of two gold medals, annually awarded to the best scholar in each of these languages.

RUGGLES PRIZES.—The Ruggles Prizes, for excellence in Mathematics, founded by Professor William Ruggles, LL.D., consist of two gold medals, annually awarded upon examination to the best two scholars in Mathematics.

DAVIS PRIZES.—The Davis Prizes, for excellence in Elocution, founded by the Hon. Isaac Davis, LL.D., of Massachusetts, consist of three gold medals, annually awarded to the successful competitors in a public contest. Only members of the Senior Class are eligible to compete for these prizes.

DAUGHTERS OF THE AMERICAN REVOLUTION PRIZES.—These prizes founded by the Daughters of the American Revolution of the District of Columbia, consist of two gold medals, awarded annually to the two students in the graduating class who, having maintained a high standing in the regular courses in Mediaeval, Modern European, English, and American History during three years, shall produce the best essays upon an assigned topic of American history.

THE THOMAS F. WALSH PRIZE.—This prize, established by Thomas F. Walsh, Esq., of Colorado, and based upon the income of one thousand dollars, consists of a gold medal awarded annually to that student of the graduating class who, having maintained a high standard in the

regular classes of Mediaeval, Modern European, English, and American History, shall produce the best essay upon a designated period of the History of Ireland.

E. K. CUTTER PRIZE.—The E. K. Cutter Prize in English was founded by the late Marion Kendall Cutter. The endowment is a fund of one thousand dollars, the income of which is given annually as a prize "for excellence in the study of English." The prize will be awarded to that member of the graduating class whose record in English, combined with general excellence, shows most marked aptitude and attainment in English studies.

WILLIE E. FITCH PRIZE.—The Willie E. Fitch Prize, for highest excellence in all branches of Chemistry, founded by James E. Fitch, Esq., in memory of his son, consists of fifty dollars, which is awarded annually for the best examination in Chemistry.

THE GARDINER G. HUBBARD MEMORIAL PRIZE.—This is a prize in American History established by Mrs. Gertrude M. Hubbard in memory of her husband, the late Gardiner G. Hubbard. The endowment is a fund of one thousand dollars, the income from which is to be given annually to that member of the graduating class who has during four years maintained a high standing in the classes of American History, and who has produced the best essays upon subjects based upon a study of some assigned period of American history.

MUTH PRIZE.—Geo. F. Muth & Co. offer a set of drawing instruments to the student taking Advanced Mechanical Drawing who makes the highest average record in that subject and in the previous year's Mechanical Drawing.

COLONIAL HISTORY PRIZE.—The Society of the Colonial Dames of America, Chapter III, offers annually a gold medal for excellence in American Colonial History. This prize will be awarded by the Professor of History for general excellence in this subject as shown by class standing, by special essays, and by such other tests as shall be prescribed.

JAMES MACBRIDE STERRETT, JR., PRIZE, founded by Professor James Macbride Sterrett in memory of his son, consists of a gold medal, annually awarded to that student taking Course 1 in Physics who obtains the highest average in a special examination on a given subject and in the writing of an essay on an assigned topic.

THE CHI OMEGA PRIZE IN PHILOSOPHY.—An annual prize of fifteen dollars is offered by the Phi Alpha Chapter of the Chi Omega Fraternity for the best essay on a philosophical subject to be announced at the close of the preceding academic year by the Committee in charge. Essays must meet the requirements defined by the Committee;

and be submitted on or before April 1st. Only women students who are members of a senior class in the Department of Arts and Sciences, and who have previously completed the courses in General Psychology, Logic, and the History of Philosophy, are eligible to compete.

DAVIS PRIZE SPEAKING.

The Davis Prize Speaking is held on the Tuesday after the Easter holidays. The Davis Prizes were founded by Hon. Isaac Davis, of Massachusetts, in 1847. The original endowment was five hundred dollars, "proceeds of which will afford three premiums, in cash or gold medals, of the value of \$5. of \$10, and of \$15 annually—these premiums or prizes to be distributed annually to such members of the Senior Class as shall have made the greatest progress in elocution since their connection with the College."

The award of these three prizes is determined by a public speaking contest, in which the participants deliver original orations. Senior students wishing to enter the competition should report to the Dean of Columbian College not later than five weeks before the contest, and submit their orations not later than three weeks before the contest. The prizes are awarded by a committee consisting of three members, selected by the Faculty of the Columbian College.

PRIZES AWARDED.

1911-12.

Staughton Prize.....	Katharine Mitchell Newbold.
Elton Prize	Katharine Mitchell Newbold.
Davis Prizes:	
First Prize.....	Harold Keats.
Second Prize	Anna Lorette Rose.
Third Prize	Herman Blaney Chubb.
Daughters of the American Revolution Prizes.....	Harold Keats.
	Katharine Strong Summy.
Thomas F. Walsh Prize	Edith Katherine Cash.
E. K. Cutter Prize	Enid Marian Hobbs.
Funk and Wagnalls Prize	Fredericka Neumann.
Gardiner G. Hubbard Memorial Prize	Harold Keats.
Colonial History Prize of the Society of the	
Colonial Dames of America.....	Kate Carroll Moore.
Fitch Prize in Chemistry.....	George Pelham Walton.
Muth Prize in Drawing.....	Francis Edwin Marvin

ENOSINIAN SOCIETY.

The Enosinian Society, a literary association, to which any University student is eligible, meets regularly for the purpose of improvement in debate and composition.

This society had its beginning March 6, 1822, during the first session of Columbian College, when a number of students held a meeting "for the purpose of establishing a debating society."

RELIGIOUS WORK.

The student movement in Association work is represented by the Young Men's Christian Association of the University, which was organized in the fall of 1905. The Association plans and conducts religious work among the men of the University. The Association calendar includes Bible study clubs, a weekly chapel service, and occasional men's meetings.

Similar lines of religious work are conducted among the women students by the Young Women's Christian Association.

COLLEGE CHAPEL.

Chapel Services are held at 12:15 p. m., every week day, except Saturday, throughout the academic year.

The Deans of the Colleges will confer with students as they may desire on questions concerning their welfare and will co-operate with them in all ways to make the college life one of personal helpfulness.

FEES.

1. Matriculation fee (payable once)..... \$5
 2. Annual library fee..... 2
 3. *Tuition fee per annum for each hour per week* of undergraduate courses leading to the degrees of A.B. and B.S., and for graduate courses leading to the degree of M.Dip..... 10
- The maximum fee charged in any one year is \$150.
4. Tuition fee per annum for graduate courses leading to the degrees of A.M., M.S., C.E., E.E., M.E., Jur.D., and Ph.D... 150
- Where candidates for higher degrees exceed the minimum time limit they may be liable for an additional charge of \$50 per annum for each topic pursued by them.
5. Late registration fee in the case of students registering for the first term after October 20, or for the second term after February 20, except for courses which do not begin with the terms..... 2

6. Laboratory courses:

Material fees:

Experimental Psychology	2
Geology 1, Zoology, Botany, Chemistry 28, each.....	5
Chemistry 4 (Assaying).	
Chemistry 2, 3, and 7; Electrical Engineering; Physics, each	10
Chemistry 4 (Assaying).....	20
Chemistry, except 2, 3, 4, 7, and 28, each.....	25
Deposits to cover breakage of apparatus issued, the amounts paid in excess of breakage to be returned:	
Chemistry, 2, 3, 7, and 28, each.....	10
Chemistry, except 2, 3, 4, and 7, each.....	25
7. Fee for graduation.....	10
8. Tuition fee for the following special course, not taken by candi- dates for a degree.....	40
Chemistry 4 (Assaying.)	
9. In determining tuition fees, three hours of laboratory work in Chemistry, and two hours of laboratory work in other sub- jects count as one hour.	
10. Fee for certificates under the seal of the University.....	2

No registration will be accepted for less than a full semester, and no change in the courses undertaken at the time of registration will be made unless approved by the Dean. *Withdrawals during the semester will be granted only on recommendation of the Dean and the approval of the President.*

PAYMENT OF FEES.

Matriculation, library, and other special fees, and laboratory deposits are due in full in advance. Tuition and laboratory material fees may be paid in monthly installments in advance. Students unable to pay their fees monthly in advance will be required to file an acceptable personal or corporate bond for \$200 as security for future payment. In every instance all indebtedness must be discharged on or before May 1 of the current academic year. All fees are payable at the office of the Treasurer of the University, 2024 G Street.

BOARD AND ROOMS.

A register of boarding houses is kept by the Treasurer. Accommodations cost from \$25 to \$40 a month.

For catalogues, application blanks, and further information, address.

THE SECRETARY,
The George Washington University,
2023 G Street, Washington, D. C.

COLUMBIAN COLLEGE.

ADMISSION.

Candidates for admission to the Freshman Class in Columbian College must meet the general admission requirements (p. 51) of fifteen units. *These fifteen units must include English, 3 units; Mathematics, 2 units; and one of the following languages: Latin, Greek, French, German, or Spanish, 2 units.* The remainder of the requirement is elective and may be satisfied in general by any accredited secondary school subjects.

For admission to advanced standing or as special students, see pp. 60-61.

REQUIREMENTS FOR DEGREES.

The undergraduate degrees offered by Columbian College are Bachelor of Arts and Bachelor of Science in Chemistry. To be recommended for either of these degrees, the student must be registered for at least one academic year, must satisfy the admission requirements, and must complete at least sixty "hours" of undergraduate courses. An "hour" of credit is one of recitation or lecture work a week or on laboratory period a week for one academic year. No time limit for the course is prescribed and the degree is given when the total of prescribed and elective studies is completed.

One grade of special distinction is recognized in awarding the bachelor's degree. It is shown by inserting the words "With Distinction" on the diploma after the name of the degree. It is awarded under the following conditions:

"That the names of all students who have received a mark of at least B (90 per cent) on courses representing at least sixty (60) per cent of all hours taken by them be submitted by the Dean to the Faculty of the Department in which the student shall be studying for a degree, after the completion of all final examinations in such students' final year of study for their degree;

"That the Faculty, after separate consideration of each individual case, shall, if it see fit, recommend the awarding of the degree 'With Distinction' to students who shall have fulfilled the conditions above specified."

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF ARTS.

To be recommended for the degree of Bachelor of Arts, the student must complete courses of study including a group of prescribed subjects, and aggregating at least sixty "hours."

There are five groups of prescribed subjects for the first two years of the college course. Every candidate for the degree of Bachelor of Arts selects one of these groups of prescribed subjects, and thereafter he is

not permitted to change to another group except on condition that he fulfill the requirements of the group to which he changes.

The studies of the last two years of the course in the College of Arts and Sciences are elective, subject only to such administrative supervision as will insure the general consistency and the liberal character of the courses selected.

The scope of the five groups of prescribed subjects is a provision alike for the diversity in the subjects of the secondary school curriculum leading to a college course, and the needs of the various graduate and professional courses of study in the University for which the college course is a preparation.

Group I emphasizes Latin and Greek studies, and it would naturally be taken by students whose preparatory work has included four years of Latin. Group II emphasizes the Modern Languages, affording to students whose preparation has not included Latin the humanistic influences of the literatures of the Modern Languages. Group III emphasizes Mathematics and the Natural Sciences, and would naturally be selected by the student whose college preparation has been scientific rather than literary. Group IV consists of such studies as would constitute needed preparation for the Department of Law. Group V consists of the subjects that should be taken by those intending to enter the Department of Medicine. The five groups are as follows:

(NOTE.—Whenever in the following groups French or German is taken, if it is elementary, the same language shall be continued the succeeding year.)

GROUP I.

	Hours.
English	6
History	3
Languages*	9
Latin	6
Mathematics	3
Psychology and Logic.....	3

GROUP II.

	Hours.
English	6
French	3
German	6
History	6
Mathematics or Science	3
Psychology and Logic	3
Romance Language	3

* To be elected from Greek, French, German.

GROUP III.

	Hours.
English	3
History	3
Mathematics	6
Modern Languages	6
Psychology and Logic	3
Science	9

GROUP IV.

	Hours.
Economics	3
English	6
History	6
Mathematics	3
Modern Languages or Latin	6
Psychology and Logic	3
Science	3

GROUP V.

	Hours.
English	3
German	3
History	3
Mathematics	3
Psychology and Logic	3
Sciences:	
Chemistry, 1, 3, 23.....	7
Physics, 1, 2, or 2, 3.....	5
Biology	3

**REQUIREMENTS FOR THE DEGREE OF BACHELOR OF
SCIENCE IN CHEMISTRY.**

Freshman Year.

	Hours.
Chemistry, 1, 2.....	5
English, 1 or 2.....	3
Mathematics, 3 or 6.....	3
French or German.....	3
Geology, 1.....	2

Sophomore Year.

	Hours.
Chemistry, 3, 20.....	5
French or German	3
Mathematics, 9 or 12.....	3
Physics, 1, 2.....	5

Junior Year.

Chemistry, 21, (4), 23.....	6	Mathematics, 20 or 21.....	3
French or German.....	3	Electrical Engineering, 7.....	3

Senior Year.

Chemistry, 6, 24, 25, 27.....	9	Geology, 2.....	2
Economics or History.....	3		

COMBINED COURSES.

The regular courses in Columbian College are so correlated with courses in the professional departments that the degree of Bachelor of Arts and the professional degree in Law may be obtained in six years, and in Medicine in seven years.

SCHEDULE OF COURSES IN THE REQUIRED SUBJECTS FOR THE FIRST TWO YEARS.

	MON.	TUES.	WED.	THURS.	FRI.	SAT.
9.15	Math. 3	English 3	Math. 3	English 3	Math. 3	English 3
10.15	Math. 9 Phil. 12, 22 Spanish 2	English 1 Physics 2	Math. 9 Phil. 12, 22 Spanish 2	English 1 Physics 2	Math. 9 Phil. 12, 22 Spanish 2	English 1
11.15	Econ. 20 French 1 German 3 Greek 2	German 1 Physics 2	Econ. 20 French 1 German 3 Greek 2	German 1 Physics 2	Econ. 20 French 1 German 3 Greek 2	German 1
1.45	Graphics 1 Latin 2 Physics 3	Chem. 2	Graphics 1 Latin 2 Physics 3	Chem. 2	Latin 2 Physics 3	
2.45	Graphics 1 Greek 1 Hist. 1, 2	Chem. 2 Hist. 26	Graphics 1 Greek 1 Hist. 1, 2	Chem. 2 Hist. 26	Greek 1 Hist. 1, 2	
3.45	Graphics 1 Hist. 3, 4 Latin 1	Chem. 2	Graphics 1 Hist. 3, 4 Latin 1	Chem. 2	Hist. 3, 4 Latin 1	
5.00	English 2 Physics 1 Math. 4	Chem. 1 French 4 German 2 Hist. 32 Geology 3	English 2 Physics 1 Math. 4	Chem. 1 French 4 German 2 Hist. 32	English 2 Physics 1 Math. 4	Chem. 1 French 4 German 2
5.50	Econ. 20 English 4 Geology 2 Math. 12 Math. 6 Spanish 1	French 2 Geology 1 German 4	Econ. 20 English 4 Math. 12 Math. 6 Spanish 1	French 2 Geology 1 German 4	Econ. 20 English 4 Geology 2 Math. 12 Math. 6 Spanish 1	French 2 German 4

COLLEGE OF ENGINEERING AND MECHANIC ARTS.

ADMISSION.

Candidates for admission to the Freshman Class in the College of Engineering are required to present fifteen units for admission, (p. 51) distributed as follows:

	Units.
English	3
French or German.....	4
Plane and Solid Geometry	1½
Elementary and Advanced Algebra.....	1½
Plane Trigonometry	½
Chemistry	1
Physics	1
Electives	2½
	<hr/>
	15

For admission to advanced standing or as a special student see pages 60-61.

NOTE.—The modern language requirement may be satisfied by presenting four units in one language, or two units in French and two units in German. Students who present four units in one language will study the other language two years in College. Students who present two units in French and two units in German will study each language one year in College.

COURSES FOR A DEGREE.

Three courses of study are offered:

- I. CIVIL ENGINEERING.
- II. ELECTRICAL ENGINEERING.
- III. MECHANICAL ENGINEERING.

These courses occupy four years each, and lead to the degree of Bachelor of Science in Civil Engineering, in Electrical Engineering, and in Mechanical Engineering, respectively. Graduate courses of one year under the Faculty of Graduate Studies of the George Washington University are open to those who receive the above degrees, and lead, respectively, to the degrees of Civil Engineer, Electrical Engineer, and Mechanical Engineer.

REQUIREMENTS FOR A DEGREE.

The arrangement of the topics in each of the regular courses for a degree is shown below. The numbers following the names of subjects refer to the courses as given in the list of Department Subjects on pages 84-118, to which reference should be made for more complete description.

COMMON TO ALL COURSES.*Freshman Year.*

- Chemistry, 1, 7.
 - General Chemistry and Qualitative Analysis.
- English, 1 or 2.
 - Rhetoric.
- French or German.
- Graphics, 1.
 - Mechanical and Freehand Drawing.
- Mathematics, 9 or 12.
 - Trigonometry; Analytic Geometry.

CIVIL ENGINEERING COURSE.*Sophomore Year.*

- Civil Engineering, 1, 3, 4.
 - Surveying; Highway Engineering; Materials of Construction.
- French or German.
- Graphics, 8.
 - Descriptive Geometry.
- Mathematics, 20 or 21.
 - Calculus.
- Physics, 1, 2.
 - General Physics; Laboratory Physics.

Junior Year.

- Applied Mathematics, 20, 22.
 - Mechanics; Mechanics of Materials.
- Chemistry, 6.
 - Metallurgy.
- Civil Engineering, 2, 8, 9, 22.
 - Railroad Engineering; Practical Astronomy; Testing Laboratory; Theory of Structures.
- Electrical Engineering, 6.
 - Industrial Engineering.
- Geology, 2.

Senior Year.

Applied Mathematics, 21.
Hydraulics.
Civil Engineering, 20, 21, 23, 24.
Masonry; Hydraulic Engineering; Theory of Structures;
Sanitary Engineering.
Contracts and Business Law.

ELECTRICAL ENGINEERING COURSE.*Sophomore Year.*

French or German.
Graphics, 2, 8.
Advanced Mechanical Drawing; Descriptive Geometry.
Mathematics, 20 or 21.
Calculus.
Mechanical Engineering, 1.
Mechanism.
Physics, 1, 2.
General Physics; Laboratory Physics.

Junior Year.

Applied Mathematics, 20, 22.
Mechanics; Mechanics of Materials.
Chemistry, 6.
Metallurgy.
Electrical Engineering, 1, 4, 5.
Elementary Electricity and Electrical Engineering; Electrical
Measurements; Electrical Engineering Laboratory.
Mechanical Engineering, 20, 21.
Steam Engineering; Boilers.

Senior Year.

Applied Mathematics, 21.
Hydraulics.
Civil Engineering, 5, 6.
Surveying Instruments; Foundations.
Contracts and Business Law.
Electrical Engineering, 8, 21, 22, 23, 24, 26, 27.
Electrical Designs; Alternating Currents; Electrical Distri-
bution; Electrical Applications; Electrical Engineering
Laboratory; Electric Lighting; Electric Railways.
Mechanical Engineering, 10, 23.
Engineering Laboratory; Hydraulic Machinery.

MECHANICAL ENGINEERING COURSE.

Sophomore Year.

French or German.

Graphics, 2, 8.

Advanced Mechanical Drawing; Descriptive Geometry.

Mathematics, 20 or 21.

Calculus.

Mechanical Engineering, 1.

Mechanism.

Physics, 1, 2.

General Physics; Laboratory Physics.

Junior Year.

Applied Mathematics, 20, 22.

Mechanics; Mechanics of Materials.

Civil Engineering, 22.

Theory of Structures.

Mechanical Engineering, 6, 9, 20, 21, 24, 28.

Engineering Drawing; Engineering Laboratory; Steam Engineering; Boilers; Cotton Machinery and Machine Tools; Industrial Management.

Senior Year.

Applied Mathematics, 21.

Hydraulics.

Chemistry, 6.

Metallurgy.

Civil Engineering, 5, 6.

Surveying Instruments; Foundations.

Contracts and Business Laws.

Electrical Engineering, 7.

Dynamos and Motors.

Mechanical Engineering, 7, 10, 22, 23, 26, 27.

Machine Design; Engineering Laboratory; Gas Engines; Hydraulic Machinery; Dynamics of Machinery; Power Plant Design.

COLLEGE OF THE POLITICAL SCIENCES.

The College of the Political Sciences offers systematic instruction in the various branches of the political sciences. This education is intended to give a training that will fit for consular and diplomatic positions and for the public service of the United States, while imparting that general culture and equipment necessary for efficient citizenship and the intelligent grasp of public questions. It is further intended as a suitable training for those who expect to enter commercial life, or to engage subsequently in the study of law.

In Washington are collected the official records of the country. As the capital of the nation, Washington furnishes the best, and in many instances the only, opportunity for studying the government in actual operation. Congress, the Supreme Court, the Executive Departments, and the government of the District of Columbia afford object lessons for the study of political science. Such an atmosphere for the student of the political sciences can be found nowhere else.

ADMISSION.

Candidates for admission to the freshman class in the College of the Political Sciences must meet the general admission requirements (p. 51) of fifteen units. These 15 units must include English, 3 units; mathematics, 2 units; and one of the following languages: Latin, Greek, French, German, or Spanish, 2 units. The remainder of the requirement is elective.

For admission to advanced standing or as special student see pages 60-61.

THE DEGREE OF BACHELOR OF ARTS

The only undergraduate degree conferred by the University for work completed in the College of Political Sciences is the degree of Bachelor of Arts (A.B.). To be recommended for this degree, the student (1) must have satisfied the entrance requirements, (2) must have been registered for at least one academic year, and (3) must have completed a total of sixty hours of class-room work (fifteen hours per week for four years), of which at least 30 must be taken in the field of the Political Sciences, or must be credited with subjects parallel to those taught in the College and obtained through transfer from another institution of similar grade.

Students who are registered in the College of the Political Sciences are required to pursue courses aggregating 6 hours per week in history, economics, or political science, through their first and second years. Other courses sufficient to aggregate 9 hours in each of the first two

years may be chosen from any one of the five groups described in Columbian College. In other words, students may select studies conforming to the arrangement in any one of these five groups, substituting an aggregate of not less than 6 hours in history, economics, and political science for such other courses therein mentioned as they may desire to omit. During the third and fourth years of the student's course, subjects aggregating 9 hours per week must be pursued in the special field of the Political Sciences. An aggregate of 30 hours per week in that field is thus required for graduation from the College of the Political Sciences. Students may, however, elect the whole of their work during the third and fourth years in the College of the Political Sciences, thus securing a total credit of 42 hours. This credit, together with 18 hours chosen in some one of the groups of studies indicated in Columbian College, will entitle the student to the degree of Bachelor of Arts. Before graduation, students will be expected to pursue as part of their regular courses English and two other modern languages, electing at least 3 hours per week for one year in each language chosen.

A representative course of study covering the first two years of a student's course may be suggested as follows:

	Hours.
Economics	6
Political Science and History.....	9
English	3
Modern Languages	6
Mathematics or Natural Science.....	3
Psychology	3

Variations of this elective grouping and selection of studies to fulfill the general requirements of the grouping may be worked out in consultation with the Dean.

In the senior year students may elect 15 hours from courses in the Law School if they desire.

The Bachelor of Arts degree is granted by the University upon the recommendation of the Faculty. No student may receive the degree who has not been in residence at this University at least one academic year.

HIGHER DEGREES.

The higher degrees conferred by the University for work completed in the College of the Political Sciences are Master of Arts (A.M.), Master of Diplomacy (M.Dip.), and Doctor of Philosophy (Ph.D.). Candidates for any one of these degrees must possess a Bachelor of Arts degree, or its equivalent, granted by a college or university of acceptable rank.

Candidates for the degree of Master of Diplomacy (1) must possess a knowledge of two modern languages other than English, (2) must complete twenty-four hours (twelve hours per week for two years) of class-room work, and (3) must prepare a satisfactory dissertation showing original research and investigation. But applicants for this degree who, in the attainment of their Bachelor of Arts degree, have completed the equivalent of twelve acceptable units in economics, political science, and public law may be credited with not more than twelve units toward the degree of Master of Diplomacy. Candidates for the Master of Diplomacy degree pursue their work under the general direction of the Dean of the College of Political Sciences. This degree is awarded by the University upon the recommendation of the Faculty of the College of Political Sciences.

Candidates for the Master of Arts or the Doctor of Philosophy degree pursue their work as students registered in the School Graduate Studies (See p. 46).

LIBRARY.

The library of the College of the Political Sciences contains several thousand volumes carefully selected with special reference to library work in connection with the courses of instruction offered. It affords a practical work-room for the use and convenience of students and is open during the day and evening.

COURSES OF STUDY.

The courses offered in this College are grouped in four sections: (1) Political Science, (2) International Law and Diplomacy, (3) Economics, and Sociology, (4) History. (See pp. 84-118).

Courses of the College are open to students in the other departments of the University with the consent of their respective Deans. Students in the College of the Political Sciences may, likewise, with the consent of the Dean of the College, elect courses in the other departments of the University.

TEACHERS COLLEGE.

The purpose of the Teachers College is to provide (a) collegiate training for teachers, (b) instruction in education as a department of science.

The aims of the Teachers College may be summarized as follows:

- (a) To promote the knowledge of educational science.
- (b) To fit students for the higher positions in the public school service.
- (c) To secure to teaching the rights and prerogatives of a profession.
- (d) To aid in raising the standards of educational practice, and so to increase the efficiency of public education.

ORGANIZATION.

In order to combine to the best advantage a general college education with adequate professional training for teaching, the Teachers College provides a four year's college course, the first two years of which are devoted to a foundation of general culture courses, and the last two to the professional courses and to specialization in the subjects which the student expects to teach.

Inasmuch as a large number of teachers in service are without college degrees, and a still larger number desire to supplement their professional training by taking special courses, the courses of instruction have been arranged to meet the needs of teachers in service, as well as of undergraduate students. The required courses constituting the prescribed work in education are given both in the morning and in the late afternoons hours, and are, therefore, easily accessible both to students and to teachers from the schools.

Opportunity is also offered to graduate students to pursue a major or minor in Education, leading to the granting of a Teacher's Diploma in conjunction with a Master's or a Doctor's degree.

ADMISSION.

Candidates for admission to the Freshman Class in the Teachers College must meet the general admission requirements (p. 51) of fifteen units. *Three of these must be in English, two in Mathematics, and two in one of the following languages: Latin, Greek, French, German, or Spanish.* The remainder of the required fifteen units may be satisfied by any accredited secondary subjects.

Persons desirous of taking one or more of the professional courses, without becoming candidates for a degree, may be admitted as special students on the presentation of satisfactory evidence that they are qualified to pursue the work to advantage.

Graduates of approved Normal Schools, Training Colleges, or Tech-

nical Schools, and teachers of experience who have studied privately, will be admitted to such advanced standing as the courses they have pursued warrant.

For further information concerning admission as special student or to advanced standing, see pp. 60-61.

THE TEACHERS COURSE.

The full college course for the training of teachers comprises the following educational divisions, the first two of which are made up of prescribed studies, the third of electives:

(a) A foundation of 25 hours of general culture studies, prescribed in accordance with the view that a teacher's preparatory training should omit no one of the principal elements of culture.

(b) A minimum of ten hours of professional training courses.

(c) Twenty-five elective hours of special information courses and further training courses.

In recognition of the professional training and the high number of prescribed hours of study, graduates of the Teachers College will receive, in addition to the Bachelor of Arts degree, a Teacher's Diploma. Both are conferred by the University.

An "hour" of study represents one hour of recitation or lecture work per week for one academic year, or its equivalent.

GRADUATION.

To be recommended for a Bachelor of Arts degree and a Teacher's Diploma, the student must complete courses of study aggregating at least sixty hours. Thirty-five of these hours are in prescribed studies, and the remainder in electives. The prescribed studies are the following:

(a) In general culture subjects:

	Hours.
English	3
Mathematics or Science	3
French, German, Latin or Greek.....	3
History	3
Psychology and Logic	3
Philosophy	5
Languages or Sciences	5

(b) In professional subjects:

	Hours.
History of Education.....	2
Principles of Education }	3
Educational Psychology }	
Child Study and School Hygiene, or }	2
Principles of Secondary Education }	
Class-room Management and Supervision, or }	1
School Administration }	
Observation and Practice Teaching.....	2

(For further definition of these requirements, see the introductory paragraph under "Education," page 111).

The electives should be chosen with direct reference to the subjects which the student wishes to teach. They are accordingly subject to the following restrictions:

All regular students must complete before graduation at least 9 hours in a Major, and at least 5 hours in a Minor subject, in addition to the first required course, if any, in the same subject.

As a Major, any one of the following subjects, or group of subjects, may be chosen: English, Latin, Greek, French, German, Mathematics, Physical Science, Biological Science, History, Economics and Political Science, Philosophy and Psychology.

As a Minor, choice may be made of any of the other subjects in the same list, or of Education.

THE TEACHERS DIPLOMA.

The Teacher's Diploma is granted in connection with the Bachelor of Arts degree upon the fulfillment of the following conditions: *a.* The student must have satisfactorily completed the courses of study defined in the preceding paragraph. *b.* He must, in the judgment of his instructors, also possess other qualifications essential to success in teaching.

The Diploma is also given in connection with higher degrees, provided a graduate student has taken a major or minor in Education, and has also satisfied the requirements *a* and *b* above, or in lieu of *a* has completed an equivalent amount of pedagogical and other work in another institution.

PRACTICE TEACHING.

Ample opportunity will be afforded for practice in teaching by (*a*) attendance upon observation classes conducted by experienced teachers, and (*b*) actual practice in teaching under the supervision and subject to the criticism of teacher critics.

EXPERIMENTAL WORK.

Teachers College maintains a psychological laboratory for introductory experimental work. The equipment is specially adapted to the investigation of problems of interest to students of education.

The school system of a large city, moreover, offers abundant opportunity for observation, and for the statistical study of methods and other practical educational problems.

TEACHERS COLLEGE LIBRARY.

The department library of Teachers College is supplied with the most important reference books and periodicals in Education, Psychology, and Philosophy, together with the principal Reports, etc. The reading room is open from 9.15 a. m. to 10 p. m., each day of the University calendar year. In addition, books may be withdrawn over night and from Saturday to Monday. For a statement of other library facilities see "University Library," page 38.

TEACHERS APPOINTMENT BUREAU.

The Teachers College maintains a Teachers Appointment Bureau for the purpose of aiding students who are studying, or have studied, in the Teachers College, or in Columbian College, to secure positions as Teachers. This service is performed gratuitously, in the interest both of students and of superintendents of schools and boards of education wishing to employ teachers. Communications should be addressed to the "Teachers Appointment Bureau," Teachers College, The George Washington University.

DEPARTMENT OF ARTS AND SCIENCES

COURSES OF INSTRUCTION.

Provided by the Department of Arts and Sciences.

Courses of instruction are divided into three sections.

First-section courses may be taken by third or fourth year students only by permission of the Dean and the professor in charge of the subject. They may sometimes be recommended to graduate students, but are not counted toward the higher degrees. The courses in the second section are in general for advanced students, candidates for the bachelor's degree; they serve, however, with additional work, as minors for the higher degrees, provided they have not already counted toward a degree. They may be taken by students in the second year of their course only by special permission of the professor in charge. The courses in the third section are in general for graduate students only, candidates for one or other of the higher degrees. They are open to undergraduates only on the recommendation of the instructors, and no undergraduate student shall take in one year more than one course in the third section. When an announced course has not been applied for by at least three students, candidates for a degree, the instructor may withdraw the course. First-section courses are numbered 1 to 19, inclusive; second-section courses from 20 to 49, inclusive; third-section courses are numbered on from 50. The number of hours, unless otherwise specified, indicate hours per week throughout the year. The unit of credit is one hour of recitation or lecture work per week for one academic year; laboratory hours in Chemistry count one-third unit each, in other subjects one-half unit each. Laboratories and drawing-rooms will be open from 9.15 a. m. till 10 p. m., with competent assistants in charge to direct students. No student is admitted to a course unless he fulfills all the preliminary requirements for the course, or otherwise satisfies the instructor that he is prepared to pursue it. Every student must make his election of courses so as to avoid conflict between the hours appointed for recitations.

ARCHAEOLOGY AND HISTORY OF ART.

MITCHELL CARROLL, Ph.D.....Professor

Second Section. For Undergraduates and Graduates.

20. HISTORY OF ART. An introductory course treating important periods in Greek, Roman and Renaissance Architecture, Sculpture and Painting. Illustrated lectures and conferences. *Wed., Fri., at 5.00.*
Professor CARROLL.

Third Section. Primarily for Graduates,

50. CLASSICAL ARCHAEOLOGY. Topography and Monuments of Athens and Rome. Two hours. Professor CARROLL.

51. ANCIENT ART. A course in the history of Egyptian, Assyrian, Persian, Greek, and Roman Architecture. Professor CARROLL.

52. LIFE, LITERATURE, AND ART OF THE HOMERIC AGE. Professor CARROLL.

Use is made of the illustrative material in the Library of Congress, the National Museum and the Corcoran Gallery of Art. Students are invited to the open meetings of the Washington Classical Club and the Washington Society of the Archaeological Institute of America.

ASTRO-PHYSICS.

FREDERICK EUGENE FOWLE, JR.....Lecturer

Third Section. Primarily for Graduates.

54. A lecture course on the astro-physical instruments employed in modern research. Mr. FOWLE.

BIOLOGICAL SCIENCE.

PAUL BARTSCH, M.S., Ph.D.....Professor

ALBERT MANN, A.M., Ph.D.....Professor

JULIA THECKLA MACMILLAN, A.M.....Assistant

GEORGE TRAYER HARRINGTON, B.S. in Agri., B.S. in Chem.....Assistant

ZOOLOGY.*First Section. Primarily for Undergraduates.*

1. SYSTEMATIC ZOOLOGY. I. Invertebrates. This includes lectures and laboratory work. The lectures in the scope cover all the branches of Invertebrates, and correlated with these lectures is the study and dissection of typical specimens in each group. This course is intended to familiarize the student with biological characters, classificatory laws, and the general principles of evolution. Lecture Mon., at 5.00; Laboratory, Wed., Fri., 5.00-6.40. Professor BARTSCH.

2. SYSTEMATIC ZOOLOGY. II. Vertebrates. This includes lectures and laboratory work. The lectures will cover the various branches of Vertebrata, and correlated with these is the study and dissection of typical specimens of each group. Open only to students having completed Course 1. Lecture, Mon., at 5.50; laboratory Wed., Fri., 5.00-6.40. Professor BARTSCH.

Second Section. For Undergraduates and Graduates.

20. PRACTICAL ZOOLOGY. A lecture course illustrated with lantern slides and demonstrators. In this course only beneficial and injurious animals of all classes will be considered, especial stress being laid upon the problems of preservation and extermination. The course aims to expound the economic side of zoology. Open to all students. One hour. Professor BARTSCH.

23. ORNITHOLOGY. A systematic course embracing lectures and laboratory work. The lectures are illustrated with lantern slides, showing the home life of birds. The laboratory work consists in classifying bird skins, of which the University possesses an excellent series. Special attention is directed to the study of the birds of the District of Columbia, and frequent field excursions are made to familiarize the student with the haunts and habits of these forms. Lecture, one hour; laboratory, one two-hour period. Professor BARTSCH.

Laboratory courses in histology and physiology will be arranged for competent students.

BOTANY.

First Section. Primarily for Undergraduates.

I. GENERAL BOTANY. An introductory course. Lecture, *Fri.*, at 5. Laboratory periods, *Tu., Th.*, 5 to 6.40. Mr. HARRINGTON.

Third Section. Primarily for Graduates.

50. Original investigation in (a) Economic Botany, *Materia Medica*, etc.; (b) Parasitism and Monstrosities; (c) Researches in Physiology of single groups; (d) Comparative Organography. Professor MANN.

CHEMISTRY.

CHARLES EDWARD MUNROE, Ph.D., LL.D.....	Professor
FRANK WIGGLESWORTH CLARKE, Sc.D.....	Professor
HARVEY WASHINGTON WILEY, Ph.D., M.D.....	Professor
FRANK ADELBERT HORNADAY, S.B., M.D.....	Associate Professor
EDWARD GRANT SEIBERT, M.D.....	Assistant Professor
N. MONROE HOPKINS, Ph.D.....	Assistant Professor
EDWIN ALLSTON HILL, Ph.D.....	Assistant Professor
THOMAS MALCOLM PRICE, Ph.D.....	Assistant Professor
OTIS DOW SWETT, M. S.....	Assistant Professor
HIRAM COLVER MCNEIL, Ph.D.....	Assistant Professor

First Section. Primarily for Undergraduates.

I. GENERAL CHEMISTRY. A series of illustrated lectures, accompanied by recitations and exercises, on theoretical, inorganic, organic, and technical chemistry. *Tu., Th., Sat.*, at 4.50. Professor MUNROE, Assistant Professor SWETT.

2. **LABORATORY PRACTICE.** A laboratory course for the study of the principles of chemistry and the method of conducting chemical experiment. Two three-hour periods. *Tu., Th.*, at 1.30 or at 7. Professor MUNROE, Assistant Professor SWETT.

3. **PREPARATION AND STUDY OF THE PROPERTIES OF CHEMICAL SUBSTANCES.** A laboratory course. Two three-hour periods. *Tu., Th.*, at 1.30 or at 7. Professor MUNROE, Assistant Professor SWETT.

4. **ASSAYING AND METALLURGY OF THE PRECIOUS METALS.** Carried on by the method used by the Government Assayers, the Laboratory being fitted up on the plan of that of the United States Mint. Twelve hours for three months. Professor MUNROE, Assistant Professor SWETT.

5. **PRINCIPLES OF ANALYSIS.** Lecture. One hour. Professor MUNROE.

6. **METALLURGY OF IRON AND STEEL.** A course of lectures and readings. *Tu.*, at 6.00. Professor MUNROE.

7. **QUALITATIVE ANALYSIS.** A brief course intended primarily for students in engineering. Two three-hour periods. *Tu., Th.*, at 1.30 or at 7. Professor MUNROE, Assistant Professor SWETT.

Second Section. For the Undergraduates and Graduates

20. **QUALITATIVE ANALYSIS.** A laboratory course in the study of the properties and reactions of chemical substances, and of the means employed for their detection and identification. Three three-hour periods. Professor MUNROE, Assistant Professor PRICE, Assistant Professor SWETT.

21. **QUANTITATIVE ANALYSIS.** A laboratory course in the quantitative estimation of the constituents of a specially selected and typical set of chemical substances, which are particularly adapted for teaching the student the aims and methods of quantitative chemical analysis and for imparting facility in manipulation. Four three-hour periods. Professor MUNROE, Assistant Professor PRICE, Assistant Professor SWETT.

23. **ORGANIC CHEMISTRY.** Advanced course. *Wed., Fri.*, at 4.50. Professor MUNROE, Assistant Professor SWETT.

24. **ORGANIC CHEMISTRY.** Advanced course. A continuation of Course 23. *Th., Sat.*, at 6.00. Professor MUNROE, Assistant Professor SWETT.

25. **CHEMISTRY OF THE CARBON COMPOUNDS.** A laboratory course in the preparation and study of the properties of a characteristic series of organic compounds. Four three-hour periods. Professor MUNROE, Assistant Professor SWETT.

26. **PHYSICAL CHEMISTRY.** A lecture course designed to be an introduction to physical chemistry, and to treat of the modern theories of chemistry from the physical standpoint. In this course special attention is given to the ionic theory, electro-chemistry, the law of mass action, and the phase rule. Two hours. Assistant Professor McNEIL.

27. **STEREO-CHEMISTRY.** This course deals with the arrangements of atoms in space from a theoretical standpoint, while the student is taught how to form models by which to illustrate their arrangements. Two hours. Assistant Professor HILL.

28. **BIOCHEMISTRY.** A laboratory course in the chemical examination of some of the chief foodstuffs, the tissues and fluids of the body, and the products of certain organisms; also the isolation of the digestive enzymes and a study of their action *in vitro*. Three three-hour periods. Assistant Professor PRICE.

30. **PHYSIOLOGICAL CHEMISTRY.** A series of lectures and recitations on the proximate principles of the human body. Two hours for one term.

31. **CLINICAL ANALYSIS.** A laboratory course to accompany 30. Professor MUNROE, Assistant Professor SEIBERT.

Third Section. Primarily for Graduates.

50. **EXPLOSIVE SUBSTANCES.** Professor MUNROE.

51. **ANALYTICAL METHODS.** Professor MUNROE.

53. **DEVELOPMENT OF THE THEORY OF THE CONSTITUTION OF THE NATURAL SILICATES.** Professor CLARKE.

54. **SPECIAL RESEARCHES IN AGRICULTURAL CHEMISTRY.** Professor WILEY.

55. **SPECIAL RESEARCHES IN ELECTRO-CHEMISTRY.** Assistant Professor HOPKINS.

Students in Chemistry are invited to attend the meetings of the Chemical Society of Washington which are held on the second Thursday of each month from October to May, in the Assembly Hall of the Cosmos Club, at 8 p. m., and also the meetings of the Chemical Society of the George Washington University, which is a most active and efficient student organization.

CLASSICAL LANGUAGES AND LITERATURES.

CHARLES SIDNEY SMITH, Ph.D.....Professor
MOSES WALTON HENDRY, A.B., LL.B.....Assistant

GREEK.

First Section. Primarily for Undergraduates.

A. **Elementary Course.** For students who have not taken Greek before matriculating. It aims to cover as much as possible of the entrance requirement in Greek, with the exception of Homer. Three hours.

B. **Homer: Iliad I-IV or Odyssey V-VIII.** For students who have taken Course A and desire to prepare themselves to enter Course 1. Two hours. Not given in 1912-13.

1. Herodotus (selections); Lysias (selected orations); Euripides (Alcestis); Greek prose composition. *Mon., Wed., Fri.*, at 2.45.
2. Xenophon (Memorabilia); Thucydides (Book VII); Sophocles (Antigone). *Mon., Wed., Fri.*, at 11.15.

Second Section. For Undergraduates and Graduates.

20. Plato (selections, including the Apology and Crito); Aristophanes (Clouds or Frogs). Two hours. Not given in 1912-13.
21. Demosthenes (selected orations); Lucian (selected dialogues); Homer (selections). *Tu., Th.*, at 1.45.

LATIN.

First Section. Primarily for Undergraduates.

1. Livy (Books I and XXI); Cicero (De Senectute); Horace (Odes and Epodes); Latin prose composition. *Mon., Wed., Fri.*, at 3.45.
2. Cicero and Pliny (selected Letters); Horace (Satires and Epistles); Martial (selections). *Mon., Wed., Fri.*, at 1.45.

Second Section. For Undergraduates and Graduates.

20. TACITUS. (selections); Terence (Phormio); Plautus (Captivi). *Tu., Th.*, at 11.15.
21. ROMAN LITERARY CRITICISM. Quintilian (Book X) and Horace (Ars Poetica); Catullus, Tibullus, and Propertius. Two hours. Not given in 1912-13.
22. ADVANCED LATIN COMPOSITION AND READING AT SIGHT. Practice in Latin expression and style. *Th.*, at 1.45.

Third Section. Primarily for Graduates.

The work in this Section is designed to afford discipline in the methods of philological criticism, with special reference to the interpretation of classical authors, and will include opportunities for original research on the part of competent students. In order to make the work as helpful as possible for those who expect to become teachers, the center of study each year will be one of the authors usually taught in the secondary schools. With the approval of the instructor, properly qualified Seniors may be admitted to these courses. The authors selected are as follows:

50. VIRGIL AND ROMAN EPIC POETRY. Not given in 1912-13.
51. CAESAR, AND THE ROMAN HISTORIANS. Not given in 1912-13.
52. CICERO, AND ROMAN ORATORY. *Tu.*, 5-6.40.

ECONOMICS AND SOCIOLOGY.

HENRY PARKER WILLIS, Ph.D (absent during 1912-13).....	Professor
CHARLES WILLIAM AUGUST VEDITZ, Ph.D.....	Professor
ROBERT RUSS KERN, A.B.....	Assistant Professor
JOHN BALL OSBORNE, A.M.....	Lecturer
JOHN LEE COULTER, M.A.....	Lecturer
JESSE E. POPE, Ph.D.....	Lecturer

Second Section. For Undergraduates and Graduates.

20. GENERAL ECONOMICS.—An outline course in the principles of political economy, devoted mainly to the study of production and exchange under present-day conditions. Given in two sections. First half-year. *Mon., Wed., Fri.*, at 11.15 (Section a); at 5.50 (Section b), Assistant Professor KERN.

21. THE ECONOMICS OF DISTRIBUTION AND CONSUMPTION.—A continuation of Course 20, devoted mainly to the problems of rent, interest, wages, and profits, and including an examination of competition, private property, luxury, saving, and speculation, in their effects upon human welfare. Given in two sections. Second half-year. *Mon., Wed., Fri.*, at 11.15. (Section a); at 5.50. (Section b), Assistant Professor KERN.

22. GENERAL SOCIOLOGY.—An outline course in the principles of sociology, devoted mainly to the study of social origins and the development of existing social institutions, with special attention to social psychology. Two hours, first half-year. *Mon., Fri.*, at 5.00. Assistant Professor KERN.

23. MODERN SOCIAL PROBLEMS.—A further analysis of modern social conditions with special studies of current questions in sociology. Prerequisite, the course in general sociology. Two hours, second half-year. *Mon., Fri.*, at 5.00. Assistant Professor KERN.

24. THE HISTORY OF ECONOMIC THOUGHT.—A review of the development of economics as a science from the earliest times to the present. Lectures and library readings. Two hours, first half-year. *Tu., Th.*, at 5.00. Assistant Professor KERN.

25. CONTEMPORARY ECONOMIC THEORY.—An advanced course in the theory of economics in continuation of the preceding; a review of current economic doctrines with critical analysis. Two hours, second half-year. *Th.*, 5.00-6.40. Not given in 1912-13. Assistant Professor KERN.

25a. SOCIAL PSYCHOLOGY.—A study of the psychological nature of man; his instincts, feelings, and passions as social forces; an inquiry

into the development of these forces, and the reaction of the social mind upon the individual; an investigation of the theories of Giddings, Tarde, Ross, and McDougall. Second half-year. *Tu., Th.*, at 5.50. Assistant Professor KERN.

26. PUBLIC FINANCE.—A course in the development of budgetary and fiscal methods and principles. The history and tendencies of public expenditure under the Federal and State governments. The theory of taxation; administration of public domains, and industries; public debts. First half-year. *Tu., Th.*, at 8.00 A. M. Professor VEDITZ.

27. MONEY AND BANKING.—The history and theory of money; the production of the precious metals; the theory of prices and measurement of price fluctuations; monetary systems; the relation of the Treasury system to our money supply; the theory of credit and banking; the national bank system of the United States and the banking system of foreign nations. Second half-year. *Tu., Th.*, at 8.00 A. M. Professor VEDITZ.

28. ACCOUNTING.—General principles of accounting. A text-book on accounting and hand-books dealing with accounting forms and methods are used as guides. Much of the work is based upon library readings with suggested problems to be worked out and submitted. The course includes a study of the accounts of representative kinds of business and the methods of accounting applicable thereto. First half-year. *Mon., Fri.*, at 8.00 A. M. Professor WILLIS. Not given in 1912-13.

29. CORPORATION FINANCE.—The various sorts of corporation securities; methods of organizing and financing modern industrial enterprises; the nature of investment and speculation; stock and produce exchanges; the effect of speculative and investment operations on the staple industries. Second half-year. *Tu., Th.*, at 5.00. Professor VEDITZ.

30. THEORY AND PRACTICE OF STATISTICS.—A conference course in the principles of statistics, with concrete examples of their applications; the graphic method; the use of averages; index numbers; and the special application of statistics to insurance; government statistical methods and publications in the United States and in the principal foreign countries. Lectures and reading. Not given in 1912-13. Two hours, first half-year. Professor WILLIS.

31. INTERNATIONAL TRADE.—A discussion of the theory and mechanism of international trade; a survey of the commerce of the world; the commercial relations of the United States. Two hours, first half-year. *Tu., Sat.*, at 8.00 A. M. Mr. OSBORNE.

32. COMMERCIAL POLICIES.—Study of the trade and navigation policies of its principal commercial powers; organization and methods of their trade-promoting institutions; tariff systems of the world; history of American tariff legislation; commercial treaties and agreements of the United States; history of the policy of reciprocity; doctrine of the

most favored nation. Two hours, second half year. *Tu., Sat.*, at 8.00 A. M. Mr. OSBORNE.

33. COMMERCIAL AND MARITIME LAW.—An outline of the principles of the law relating to commercial transactions generally, including those peculiar to the sea, with more especial reference to the subjects of contracts, sales, bailments, agency, partnership, negotiable instruments, and common carriers. First half-year. *Tu., Th., Sat.*, at 5.00. Mr. LATIMER.

34. COMMERCIAL AND INDUSTRIAL HISTORY.—The rise and progress of commerce from antiquity to modern times, with particular emphasis on the effects of commerce upon civilization and the relations between commercial and political development. The rise and progress of economic activities in the English colonies of North America and of the agricultural, commercial, and industrial growth of the United States. First half-year. Not given in 1912-13.

35. MODERN BUSINESS ORGANIZATION.—A study of the modern business, the present modes of producing and distributing commodities, modes of controlling prices, systems of retailing, advertising, etc. Second half-year. *Wed.*, at 5.50. Professor VEDITZ.

36. COMMERCE, INDUSTRY, AND TRANSPORTATION OF THE UNITED STATES.—A study of the resources, industries, business activities, and internal and foreign commerce of the United States; the products of the various sections; the transportation systems by which they are interchanged or assembled for manufacturing and redistribution; manufacturing systems; domestic exchange; distribution to foreign countries; the markets in which exports are sold and from which imports are drawn. Two hours, first half-year. *Tu., Th.*, at 5.00. Professor VEDITZ.

37. COMMERCIAL GEOGRAPHY AND BUSINESS ORGANIZATION.—The products, industries, and commerce of the various countries and sections of the world; the exchanges between climatic sections and between the great producing and manufacturing sections and countries of the world; the staple articles of commerce, their places of production and sale; manufacturing industries and the distribution of their products; the transportation and financial systems by which interchanges are facilitated; a comparative view of the commercial, economic, and financial conditions in the various sections and countries of the world. Two hours, second half-year. *Mon., Wed., Fri.*, at 5.50. Mr. AUSTIN and Professor VEDITZ.

38. COOPERATION AND RURAL ECONOMICS.—Economic principles governing and comparative advantages of individual, corporate, and cooperative organization in ownership of land, water rights, and farm equipment; in production, manufacturing, storing, and marketing of agricultural products; in buying of farm equipment and supplies; in credit, insurance, telephone, etc. Problems of farm labor; size, owner-

ship, and value of farms, land titles, etc. Lectures, assigned readings, reports on special topics, quiz. First half-year. *Wed., Sat.*, at 8.00 A. M. Dr. COULTER.

39. AGRICULTURAL CREDIT.—The importance of agricultural credit and its relation to other forms of credit will be discussed. Its history and development in the leading European countries will be traced and special emphasis will be laid on agricultural banks and credit, the status of agricultural credit in the United States and the applicability of European methods. Lectures and assigned readings. Second half-year. *Wed., Sat.*, at 8.00 A. M. Dr. POPE.

40. TAXATION.—Taxation, its administration and organization. The legal problems which arise in connection with taxation will be studied through typical cases. Two hours, second half-year. Not given in 1912-13. Professor WILLIS.

41. ADVANCED ACCOUNTING.—A special study of accounting principles in their application to specified classes of business. Prerequisite—the course in accounting. Second half-year. *Mon., Fri.*, at 8.00 A. M. Professor WILLIS. Not given in 1912-13.

42. INSURANCE.—The historical development of insurance; its economic aspects; fire, accident, and life insurance from the standpoint of internal organization; rates; policies. Two hours. Second half-year. Not given in 1912-13. Professor WILLIS.

43. LABOR PROBLEMS.—A brief sketch of the labor movement in the United States and of the aims and methods of trade unions, followed by a discussion of such problems as: Child labor; dangerous occupations; workingmen's insurance against sickness, old age, accidents, and unemployment; strikes and industrial conflicts; conciliation and arbitration; collective bargaining. Two hours, second half-year. *Tu., Th.*, at 5.50. Not given in 1912-13. Assistant Professor KERN.

44. COMBINATIONS—TRUSTS.—A discussion of the conditions which have favored the growth of large business combinations, the nature of their organization, their influence upon prices and productive efficiency, and the regulation and supervision of them. Two hours, first half-year. *Tu., Th.*, at 5.50. Not given in 1912-13. Assistant Professor KERN.

Primarily for Graduates.

50. SEMINAR IN AGRICULTURAL ECONOMICS.—A research course, designed for students who desire to do work in Agricultural Economics, conducted by the seminar method. Assigned readings and lectures will be given, but the main object will be to encourage and direct students in individual research. Hours to be arranged. Dr. POPE.

51. SEMINAR IN SOCIOLOGY.—A research course for the detailed investigation of special sociological problems, suitable for those who are engaged in original investigation or in the preparation of a thesis. Hours to be arranged. Professor VEDITZ.

ENGINEERING.

EDWIN VIVIAN DUNSTAN, C.E.....	Assistant Professor
OSCAR ALEXANDER MECHLIN, C.E.....	Assistant Professor
FRANK CHARLES STARR, B.S.....	Assistant Professor
CHARLES WARD MORTIMER, M.E.....	Assistant Professor
HAYNER HASKELL GORDON, E.E., Ph.D.....	Instructor
ROBERT WILBUR MORSE, S.B.....	Instructor
MARK RITTENHOUSE WOODWARD, E.E.....	Instructor

APPLIED MATHEMATICS.

Second Section. For Undergraduates and Graduates.

20. ANALYTICAL AND APPLIED MECHANICS. (1) Statics: including the composition, resolution, and equilibrium of forces; center of gravity; friction; machines. (2) Kinematics and Kinetics: including rectilinear and curvilinear motion; motion under action of variable forces and in resisting media; constrained and rotary motion; impact; work and energy; moment of inertia. Four hours a week, first half-year. Assistant Professor DUNSTAN.

21. HYDRAULICS. The theoretical principles of hydraulics: including hydrostatics, flow through orifices, over weirs, through pipes and in open channels, and the dynamic pressure of water. Four hours a week first half-year. Assistant Professor DUNSTAN.

22. MECHANICS OF MATERIALS AND THEORY OF ELASTICITY: including elastic and ultimate strength and deformation: simple cantilever and continuous beams; columns, torsion; combined stresses; compound columns and beams: including reinforced concrete; resilience; work; fatigue; mathematical theory of elasticity. Four hours a week, second half-year. Assistant Professor DUNSTAN.

CIVIL ENGINEERING.

First Section. Primarily for Undergraduates.

1. SURVEYING AND MAPPING. This course includes the theory and use of instruments; land, topographic, hydrographic, mining, city, and geodetic surveying; measurement of volumes, prejection of maps, etc. The course includes plotting survey notes, typographic symbols, lettering. Two hours a week. Field work, usually on Saturday. One drawing period a week. Assistant Professor STARR.

2. RAILROAD ENGINEERING. Railroad curves and earthwork; location of about a mile of railroad; laying out curves; construction of contour

maps, profiles, mass diagrams, etc. Two hours a week recitation both terms and one period drawing second term; field work usually on Saturdays. Assistant Professor STARR.

3. HIGHWAYS AND PAVEMENTS. Location of highways; construction, improvement and maintenance of roads and pavements; curbs, gutters, sidewalks. Two hours a week during the second term. Assistant Professor MECHLIN.

4. MATERIALS OF CONSTRUCTION. A study of the properties of stone, brick, cement, concrete, wood, iron, steel, etc., with reference to processes of manufacture. The course is supplemented by a number of practical tests made by the students. Two lectures and one laboratory period during first term. Assistant Professor MECHLIN.

5. SURVEYING INSTRUMENTS. A two-months' course for Mechanical and Electrical Engineering students, covering the use of the compass, transit, and level. Lectures and field exercises, two hours per week. Assistant Professor STARR.

6. FOUNDATIONS. A two-months' course for Mechanical and Electrical Engineering students, covering the general principles of foundation construction and the materials used. Two hours a week. Assistant Professor MECHLIN.

8. A COURSE IN PRACTICAL ASTRONOMY FOR CIVIL ENGINEERING STUDENTS. Special attention is given to the methods of determining latitude, longitude, azimuth and time with the engineer's transit; observations for each being a required part of the course. Two lecture-recitation periods per week for one term. Assistant Professor STARR.

9. MECHANICAL TESTING. A laboratory course in the investigation of the physical properties of engineering material, including exercises in the use of a 200,000 pound Olson Testing Machine. Eighteen periods of two (2) hours each in the second term.

Second Section. For Undergraduates and Graduates.

20. MASONRY CONSTRUCTION. A course in the use of cement, brick, stone, and concrete, the design of foundations, retaining walls, dams, bridge piers and arches. Included in this is a short course in stereotomy. Two lectures and two design periods per week. Assistant Professor MECHLIN.

21. HYDRAULIC ENGINEERING. The design and construction of water-power plants and irrigation works. Flow of rivers; rainfall and runoff; methods of development; hydraulic motors; power transmission. Irrigation plans; distributing system; water rights and irrigation law. Four lectures and two design periods per week, second term. Assistant Professor DUNSTAN.

22. THEORY OF STRUCTURES. A course covering the determination of stresses in framed structures by graphical and by analytical methods.

The first term is devoted to beams and roof trusses; the second to bridge trusses under uniform and wheel loads. Three lectures and two design periods per week. Assistant Professor DUNSTAN.

23. THEORY OF STRUCTURES. The theory of steel design; the design of a roof truss, of a plate girder and a pin connected bridge truss and a study of the theory and design of suspension, continuous, cantilever, and arch bridges, and the details of steel-mill and office-building construction. Three lectures and two design periods per week. Assistant Professor MECHLIN.

24. SANITARY ENGINEERING. This course treats on the drainage of buildings and lands; the treatment and disposal of sewage and the sewerage of cities and towns; public water supply and methods of water purification. Three lectures and one design period per week. Assistant Professor MECHLIN.

Third Section. Primarily for Graduates.

50. ADVANCED MASONRY. A course in the theory and design of reinforced concrete structures. Assistant Professor MECHLIN.

51. ADVANCED MASONRY. The theory of retaining walls and arches. Assistant Professor MECHLIN.

52. TESTING OF MATERIALS. This course involves original research upon assigned topics. Assistant Professor MECHLIN.

53. WATER-POWER DEVELOPEMENT. A comparative study of the principal water-power developments of the United States and Europe. The course consists largely of assigned readings and reports thereon. Assistant Professor DUNSTAN.

ELECTRICAL ENGINEERING.

First Section. Primarily for Undergraduates.

I. ELEMENTARY MATHEMATICAL THEORY OF ELECTRICITY AND MAGNETISM; Direct Current Motors and Generators; Design work; Elements of Electrical Engineering, and problems.

For about one-third of the session elementary electricity and magnetism is studied, with especial attention to the needs of engineering students. This is followed by a study of direct current generators and motors, covering the laws of the magnetic circuit as applied to the dynamo, and including the design of electrical apparatus and machinery. During the last part of the course a study of the elements of electrical engineering is taken up and an introductory study of alternating currents is begun. Numerous problems are assigned throughout the course. Five hours a week. Assistant Professor MORTIMER.

4. ELECTRICAL MEASUREMENTS. A laboratory course for Juniors. Se-

lected experiments. Foster's Hand-book and special laboratory notes are used for reference. Six hours a week, first term. Assistant Professor MORTIMER and Mr. WOODWARD.

5. ELECTRICAL LABORATORY. Experiments and tests involving the operation of direct-current dynamos and motors, including tests of motors in service, operating elevators, street cars, and machinery of various kinds. Text-book: Sever and Townsend's "Laboratory and Factory Tests in Electrical Engineering." Six hours a week, second term. Assistant Professor MORTIMER and Mr. WOODWARD.

6. INDUSTRIAL ELECTRICITY. A practical course intended for Juniors in Civil Engineering, embracing the selection and operation of electrical machinery, electrical railways and other applications of electric motors. Two hours a week for the first term. Mr. WOODWARD.

7. ELECTRICAL ENGINEERING. A course in theoretical and applied electricity intended for Seniors in Mechanical Engineering. It embraces the selection and operation of electrical machinery, the location, construction, and operation of power plants, electric railways and transmission lines, the use of electric motors for driving machinery, and the working of storage batteries, elevators, hoists, and cranes. Three hours a week. Mr. WOODWARD.

8. ELECTRICAL DESIGN. A course for Seniors in Electrical Engineering, embracing calculation and design of electrical machinery and accessories, including switchboards, rheostats, instruments, and arrangement of same. One recitation period and one drawing period throughout the year.

Second Section. For Undergraduates and Graduates.

21. ALTERNATING CURRENT THEORY AND MACHINERY. A course for Seniors in Electrical Engineering, covering the principles of single as well as polyphase currents, including study of machines, circuits, transformers, etc. Four hours a week. Assistant Professor MORTIMER.

22. ELECTRICAL DISTRIBUTION. A course for Seniors in Electrical Engineering, covering the whole field of distribution of electricity for light and power. Text-book: Crocker's Electric Lighting; second volume, "Distribution System." Two hours a week. Assistant Professor MORTIMER.

23. ELECTRICAL APPLICATIONS. A course for Seniors in Electrical Engineering, covering the more important applications of electricity, such as motive power, including elevators, hoists and machine drive, telephony, telegraphy, electro-metallurgy, etc. One hour a week. Mr. WOODWARD.

24. ADVANCED LABORATORY WORK FOR SENIORS IN THE ELECTRICAL ENGINEERING COURSE. Covers test and experimental work with direct and alternating currents, tests of machines, circuits, transformers, circuits containing inductance and capacity, measurement of power in alternat-

ing current circuits, plotting of curves, etc. Text-book: Sever and Townsend's "Laboratory and Factory Tests in Electrical Engineering," with Foster's Electrical Engineer's Hand-book for general reference. Six hours a week. Assistant Professor MORTIMER.

25. INSPECTION OF PLANTS AND INDUSTRIAL WORKS. In the vicinity of Washington and Baltimore are a number of modern electric lighting and street railway plants, telephone exchanges, telegraph operating rooms, Government laboratories devoted to special work, etc., which afford students of Electrical Engineering an opportunity to familiarize themselves with nearly all types of apparatus in use. The visits are followed by class discussion based on written description submitted by the students.

26. ELECTRIC LIGHTING AND ILLUMINATION. A course for Seniors in Electrical Engineering covering the subject of electric lighting and illumination, including detailed study of different types of lamps, shades, arrangement of light sources, effect of walls, etc. Two hours per week, first term. Mr. WOODWARD.

27. ELECTRIC RAILWAYS. A course for Seniors in Electrical Engineering covering the theory and practice of modern, direct and alternating current railways. Two hours a week, second term. Assistant Professor MORTIMER.

28. HIGH FREQUENCY CURRENTS. A lecture course covering the theory of high frequency and oscillatory currents and their application to wireless Telegraphy and Telephony. The condenser discharge, the theory of resonance in coupled circuits, and electromagnetic waves will be treated. The design of wireless telegraph and telephone apparatus will also be discussed. The class will meet in the laboratory from time to time to familiarize themselves with the use of wireless apparatus. One period a week. Dr. GORDON.

Juniors and Seniors in Electrical Engineering are expected to attend the monthly meetings of the Washington Branch of the American Institute of Electrical Engineers.

Third Section. Primarily for Graduates.

52. ADVANCED COURSE IN THE MATHEMATICAL THEORY OF ALTERNATING CURRENTS. Assistant Professor MORTIMER.

53. ADVANCED COURSE IN POLYPHASE CURRENTS. Assistant Professor MORTIMER.

54. ADVANCED LABORATORY WORK, ALTERNATING (INCLUDING POLYPHASE) CURRENT APPARATUS. Assistant Professor MORTIMER.

55. ADVANCED ELECTRIC RAILWAYS. A course including a short history of electric railways, calculation of the theoretical curves, study of different systems and examples of modern installations. Philip Dawson's "Electric Traction on Railways" is used as a basis for the course. Assistant Professor MORTIMER.

GRAPHICS.

First Section. Primarily for Undergraduates.

1. MECHANICAL AND FREEHAND DRAWING. A general course embracing the care and use of instruments; orthographic and isometric projections; sections and intersections; curve plotting; sketching of simple machine details; freehand lettering; principles of working drawings. Six hours a week in the drawing-room. Assistant Professor STARR.

2. ADVANCED MECHANICAL DRAWING. A course in working drawings especially designed for Electrical and Mechanical Engineering students. Drawing-room rules and practice; conventional forms and standards; arrangement of views and sections; freehand shop-sketches; detailing from sketches, models and general drawings; proportioning by empirical formulas. Six hours a week in the drawing-room.

8. DESCRIPTIVE GEOMETRY. A study of the representation of lines, surfaces, and solids, and of their relations; tangencies, intersections, and developments; warped surfaces; shades and shadows; original construction problems. Two lectures and one drawing period per week. Assistant Professor STARR.

Third Section. Primarily for Graduates.

50. ADVANCED GRAPHIC STATICS. A study of the graphical analysis of higher structures, with special reference to the method of influence lines. Assistant Professor DUNSTAN.

MECHANICAL ENGINEERING.

First Section. Primarily for Undergraduates.

1. MECHANISM. A course in the systematic study of the kinematics of machinery, in which mechanical movements are reduced to scientific analysis. Carefully developed problems and diagrams of changes of position and speed in mechanisms are constantly used.

Some attention is given to the design of gear teeth, and twenty-five hours in the second term are devoted to valve gears for steam engines. Three lecture-recitation hours and two drawing hours per week during the Sophomore year. Mr. MORSE.

6. ENGINEERING DRAWING. This course provides for the application of the principles taught in the courses of Mechanism and Steam Engineering to specific problems. Practice is given in the design of valve gears and quick return motions, and in the determination of velocity diagrams for special engine and other linkages. There is also included the complete working drawings for a steam boiler. Six drawing hours per week during the Junior year. Mr. MORSE.

7. MACHINE DESIGN. This course is an application of principles already acquired to problems in design, each student being required to complete every detail of the design undertaken.

The subjects taken as design problems are: The design of a boiler; shafting; a series of shaft couplings; an automobile transmission, and a punching machine.

The constructive details and calculations are discussed and the limitations of theoretical and empirical formulas pointed out. One lecture-recitation hour and five drawing hours per week during the Senior year. Mr. MORSE.

9. ENGINEERING LABORATORY. A course of practical work in testing general engineering apparatus for efficiency. The work consists in indicating steam engines; determining the evaporative efficiency of boilers; tests on the strength of materials; measurement of the flow of water; gas-engine brake tests; refrigeration tests, and fuel value determinations. Six laboratory hours per week for the last half of the Junior year. Mr. MORSE.

10. ENGINEERING LABORATORY. This course is a completion of Course 9. Six hours a week during the Senior year.

Second Section. For Undergraduates and Graduates.

20. This course deals with the principles of thermo-dynamics; the properties of gases and vapors, especially steam, and the flow of steam through nozzles. The application of the above principles is discussed and the simple and compound steam engine and the steam turbine are studied. Three lecture-recitation hours per week during the first half of the Junior year. Dr. GORDON.

21. BOILERS AND POWER PLANT ACCESSORIES. This course is devoted to a study of Boilers, Condensers, Feed Pump, Economizers, Stokers, and other power-plant accessories. The design of power plants will be discussed. Three lecture-recitation hours per week for the last half of the Junior year. Dr. GORDON.

22. GAS ENGINES AND COMPRESSION AND REFRIGERATION MACHINERY. This course deals with the theory and practice concerning the internal combustion motor. During the second half of the term the theories and principles involved in compression machinery and artificial refrigeration will be discussed. Three lecture-recitation hours per week for the last half of the Senior year. Dr. GORDON.

23. HYDRAULIC MACHINERY. This course provides for an elementary study of hydraulic prime movers and pumping machinery. It includes a discussion of the theory and design of turbines and turbine blades for low and high heads, and turbine governors.

The course will also treat of impulse wheels; water motors of the piston type; machinery for the utilization of hydraulic pressure; hy-

draulic pressure pumps, and hydraulic presses; hydraulic tools; pumps operated by steam, electricity, or power; and high duty pumps and water meters. Two lecture-recitation hours per week for the first half of the Senior year. Mr. MORSE.

24. COTTON MACHINERY AND MACHINE TOOLS. A study of the mechanisms found in cotton machinery and machine tools. Two lecture-recitation hours per week throughout the Junior year. Mr. MORSE.

26. DYNAMICS OF MACHINES. A course including a number of the principal applications of Dynamics to moving machinery, such as governors, fly-wheels, and the effect of the reciprocating parts of the steam engine. Two lecture-recitation hours per week throughout the Senior year. Mr. MORSE.

27. POWER-PLANT DESIGN. This course provides for the design with complete plans and specifications of a power plant of industrial proportions by the student. One lecture-recitation hour and six drawing hours per week for the first half of the Senior year. Dr. GORDON.

28. INDUSTRIAL MANAGEMENT. A course dealing with the business systems of manufacturing establishments.

The work includes a study of the organization and relations of the various departments of an industrial establishment, both in the office and in the workshop. It also discusses the conduct of accounts, the method of superintendence and of compensating labor, the determination of the cost of production, and the effect on costs of different systems of distributing indirect expenses. Two lecture-recitation hours per week for the last half of the Junior year. Mr. MORSE.

ENGLISH.

WILLIAM ALLEN WILBUR, A.M.....	Professor
CHARLES WILLIAM AUGUSTUS VEDITZ, Ph.D.....	Professor
EDWIN WILEY, Ph.D.....	Lecturer

First Section. Primarily for Undergraduates.

1. ENGLISH RHETORIC. A study of the principles of self expression through language with practice in composition. *Tu., Th., Sat., at 10.15.* Professor WILBUR.

2. ENGLISH RHETORIC. Parallel with Course 1. *Mon., Wed., Fri., at 5.00.* Professor WILBUR.

NOTE.—Credit for Course 1 or 2 is requisite for admission to any other course in English.

3. HUMANISTIC STUDIES. *Utopia; Ecclesiastical Polity, Book I; Areopagitica; Sense and Sensibility, Pride and Prejudice, Emma, Persuasion; The Pilot; The House of Seven Gables; The Marble Faun; Vanity Fair; Adam Bede, The Mill on the Floss; The Cloister and the*

Hearth; The Merry Men; The English Sonnets. *Tu., Th., Sat.*, at 9.15. Professor WILBUR.

4. HUMANISTIC STUDIES. Advancement of Learning, Book I; Hydriotaphia; Kenilworth, The Heart of Midlothian; The Federalist; The Deerslayer, The Last of the Mohicans, The Pathfinder; The Scarlet Letter; The English Mail Coach; Dombey and Son; The Newcomes; Barchester Towers; Travels with a Donkey, An Inland Voyage; The Chief American Poets. *Mon., Wed., Fri.*, at 5.50. Professor WILBUR.

Second Section. For Undergraduates and Graduates.

20. ENGLISH COMPOSITION. An advanced course. *Tu., Th.*, at 11.15. Professor WILBUR.

22. SHAKESPEARE. The Comedies. *Mon., Wed., Fri.*, at 1.45. Professor WILBUR.

23. SHAKESPEARE. The Tragedies. Not given in 1912-13. The Temple edition of Shakespeare is recommended.

25. THE PRELUDE (First Term). Paradise Lost (Second Term). *Tu., Th., Fri.*, at 3.45. Professor WILBUR.

28. DEBATING. The principles of argumentation with special reference to the formal and informal discussion of controverted problems in the field of economics and politics. First half year, *Tu., Th.*, at 5.50. Professor VEDITZ.

30. DEBATING. The Technique of Debate. An advanced course in the collection and preparation of material for the purpose of debate, the tactics of presentation and refutation, and the general strategy of public debate. Second half-year, *Tu., Th.*, at 5.50 (This course may be taken as a one-hour course, *Tu.*, at 5.50). Professor VEDITZ.

Third Section. Primarily for Graduates.

54. ENGLISH SEMINARY. Graduate students engaged in individual research will discuss assigned topics in a seminary of English studies, meeting each week at an appointed time.

GEOLOGY AND MINERALOGY.

GEORGE PERKINS MERRILL, Ph.D.....Professor
RAY SMITH BASSLER, Ph.D.....Assistant Professor

First Section. Primarily for Undergraduates.

1. MINERALOGY. Crystallographic, descriptive, and determinative mineralogy. This course is designed with especial reference to minerals as rock constituents or segregated as ore deposits. It includes, therefore, a discussion of not merely the crystallographic and theoretical, but the

practical side of the subjects as well. Whenever possible, it should be considered as introductory to the courses in either systematic or economic geology. *Tu., Th.*, at 5.50.

2. GEOLOGY. Systematic geology; dynamical, structural and stratigraphical. The course is designed to form a part of a general-culture course, or a preliminary course for those intending to make a specialty of geology. It includes lectures, recitations, laboratory and field work so far as hours will permit. Paleontology is treated as a branch of geology, having especial reference to stratigraphy and correlation. Text-books: Blackwelder and Barrows' *Elements of Geology*; Merrill's *Rocks, Rock Weathering, and Soils*. *Mon., Fri.*, at 5.50.

3. PHYSICAL GEOGRAPHY. A general culture course of lectures, laboratory and field work, treating of the earth as a globe, the atmosphere, the oceans and the lands; one hour per week. *Tu.*, at 5.00.

Second Section. Primarily for Undergraduates and Graduates.

20. ECONOMIC GEOLOGY. [Geology 1 and 2 and Chemistry 1 are prerequisite for this course.] The course covers the subjects comprised under: (1) Mineral veins and metalliferous deposits, their mode of occurrence, origin, and classification; (2) the ores of iron, copper, lead, zinc, tin, silver, gold, mercury, antimony, etc; and (3) the non-metallic minerals as the coals and hydrocarbon compounds; salts and materials used in chemical manufactures; abrasive, refractory, and fictile materials, pigments, gems, ornamental stones, building stones, limes, cements, and mineral waters. Text-books: Weed's *Translation of Beck's Nature of Ore Deposits*; Merrill's *Stones for Building and Decoration and The Non-Metallic Minerals*. *Mon., Fri.*, at 5.00.

21. PALEONTOLOGY. A course in lecture and laboratory work on the biological and geological relations of the more important types of animals and plants, with especial reference to their value in stratigraphic geology.

Third Section. Primarily for Graduates.

Advanced study in Geology, both systematic and applied, is arranged to cover two years.

50. ADVANCED GEOLOGY AND PALEONTOLOGY. The student in this first-year course may devote his time largely, if necessary, to perfecting himself in methods; to general work in the laboratory and in the field; to the examination of geological materials, and to familiarizing himself with the literature of the subject.

51. ADVANCED PALEONTOLOGY AND STRATIGRAPHIC GEOLOGY. A continuation of Course 21. Besides the study of paleontological methods, the student is expected to pursue some special line of investigation in order to fit himself for original research.

GERMANIC LANGUAGES AND LITERATURE.

HERMANN SCHOENFELD, Ph.D., LL.D.....Professor
 ALFRED FRANCIS WILLIAM SCHMIDT, A.M.....Professor

First Section. Primarily for Undergraduates.

1. ELEMENTARY. The essentials of German grammar; translation of prose and poetry; composition and dictation. This course is open only to beginners, and the work done is equivalent to that of a two years' course in high schools and academies of good standing. *Tu., Th., Sat., at 11.15.* Professor SCHOENFELD.

2. Parallel with Course 1. *Tu., Th., Sat., at 5.00.* Professor SCHMIDT.

3. Selected texts from the best contemporary authors will be read and one or more of the German classics carefully studied. The work in grammar and composition done in elementary German will be continued, with special emphasis on syntax, word-formation, and the relationship of German and English. This course is equivalent to the advanced German of the admission requirements, and it is open only to students who have passed Course 1 or 2, or have satisfied the admission requirement in elementary German. *Mon., Wed., Fri., at 11.15.* Professor SCHOENFELD.

4. Parallel with Course 3, except that in the second term scientific German is read. *Tu., Th., Sat., at 5.50.* Professor SCHMIDT.

5. Advanced course in German syntax; principal difficulties of the language; idioms; synonyms; extensive translations of the best English prosaists into German; essays; selected advanced prose; classical reading and literature; German history. Open to students who have passed Course 3 or have satisfied the admission requirement in advanced German. *Mon., Wed., Fri., at 1.45.* Professor SCHOENFELD.

6. Parallel with Course 5, with special reference to advanced students both in the historico-political and the scientific departments. *Tu., Th., at 5.00.* Professor SCHOENFELD.

Second Section. For Undergraduates and Graduates.

20. HISTORY OF GERMAN LITERATURE FROM THE MIDDLE HIGH GERMAN PERIOD TILL 1748. Collitz's Selections and Priest's German Literature. Lectures, readings, essays. *Mon., Wed., Fri., at 10.15.* Professor SCHOENFELD.

21. GERMAN LITERATURE OF THE CLASSIC PERIOD AT ITS ZENITH. Goethe's and Winckelmann's influence on German art; with special reference

to the modern German Drama; Hebbel, Ludwig, Laude, Freytag, Ludermann, Fulda, Hauptmann. *Tu., Th., Sat.*, at 10.45. Professor SCHOENFELD.

Third Section. Primarily for Graduates.

50. EPIC AND LYRICAL POETRY IN THE TWELFTH AND THIRTEENTH CENTURIES, as exemplified in the Nibelungenlied and in Walter von der Vogelweide. Professor SCHOENFELD.

51. GOTHIC. Introduction to comparative Indo-European Grammar. Two hours. Professor SCHMIDT.

52. OLD HIGH GERMAN. The development of the German language. Two hours. Professor SCHMIDT.

Only one of the foregoing two courses (51, 52) is given in any one year.

For notice of the Richard Heinzel Germanic Library, see page 38.

HISTORY.

CHARLES CLINTON SWISHER, Ph.D., LL.D.....	Professor
LEVI RUSSELL ALDEN, A.M.....	Assistant Professor
GEORGE MORTON CHURCHILL, A.M.....	Instructor
LESLIE CLEVELAND MCNEMAR, A.B.....	Instructor
JOSEPH PLASS, A.M.....	Instructor
HAROLD KEATS, A.B.....	Assistant

First Section. Primarily for Undergraduates.

1. MEDIAEVAL HISTORY. A history of the settlement of the Germanic tribes in the territory of the Empire, with a study of feudal institutions through the movements of the Crusades; texts, with assigned readings. First half-year. *Mon., Wed., Fri.*, at 2.45. Professor SWISHER.

2. MEDIAEVAL HISTORY. A history of the evolution of national government through the periods of the Renaissance and the Protestant Revolution; texts and assigned readings. Second half-year. *Mon., Wed., Fri.*, at 2.45. Professor SWISHER.

3. MODERN EUROPEAN HISTORY. A study of the European States under the new conditions resulting from the discovery of America and the opening of the oriental trade routes, extending through the period of the French Revolution; texts, lectures, and collateral readings. First half-year. *Mon., Wed., Fri.*, at 3.45. Professor SWISHER.

4. A continuation of the preceding through the revolutionary movements of the nineteenth century, with a more detailed study of recent issues; tests lectures, and collateral readings. Second half-year. *Mon. Wed., Fri.*, at 3.45. Professor SWISHER.

Second Section. For Undergraduates and Graduates.

23. EUROPEAN HISTORY, 1815 TO 1870. Text-book, lectures, and reports on collateral reading. Besides the history of Europe proper much attention is given to matters of larger European interests, especially to colonization and international relations with reference to South America, Asia, and Africa. First half-year. *Mon., Wed., Fri.*, at 5.50. Mr. McNEMAR.

24. EUROPEAN HISTORY, 1870 TO THE PRESENT. Continuation of the preceding, studying the most recent developments with special attention to the forms of government, political questions, and current issues. Second half-year. *Mon., Wed., Fri.*, at 5.50. Mr. McNEMAR.

25. English Constitutional History. A history of the evolution of parliamentary government, with incidental study of social and industrial development. *Mon., Wed., Fri.*, at 5.00. Mr. CHURCHILL.

26. AMERICAN POLITICAL HISTORY. A general course in American History designed as a preparation for specialized work, or for students having a limited time to devote to the subject. Lectures, text-books, and reports upon assigned readings. *Tu., Th.*, at 2.45, with a third hour at the convenience of the instructor. Professor SWISHER.

30. AMERICAN CONSTITUTIONAL HISTORY. A history of the origin and development of the Federal Constitution of 1789, with a study of its interpretation under the pressure of party issues, extending through the periods of division and reunion. Lectures, text-books, and collateral readings. *Mon. and Fri.*, at 5.00, in alternate years. Not given in 1912-13.

31. AMERICAN CONSTITUTIONAL HISTORY SINCE THE CIVIL WAR. The constitutional results of the Civil War, as illustrated in the decisions of the Supreme Court during the past half century. *Tu., and Th.*, at 3.45, with an additional hour at the convenience of the instructor, in alternate years. Not given in 1912-13.

32. A HISTORY OF PARTY GOVERNMENT. The development of the party system and the influence of party leaders and party issues in the United States; a research course based upon the study of political platforms and campaign literature. *Tu., and Th.*, at 5.00, with an additional hour at the convenience of the instructor. Professor SWISHER.

33. CURRENT HISTORY. A discussion of political questions of the day, with special reference to their origin and historical significance. Lectures throughout the year. *Sat.*, at 11.15. Professor SWISHER.

Third Section. Primarily for Graduates.

54. SEMINARY WORK. The results of individual research, conducted by graduate students upon assigned topics, will be discussed at the weekly meetings of the seminaries of American and Modern European History.

Undergraduate students properly qualified by previous study, who desire to do intensive work with a view to gaining fuller information upon special periods or facility in the use of historical materials, may, with the approval of the instructor, be admitted to the historical seminars.

INTERNATIONAL LAW AND DIPLOMACY.

CHARLES HERBERT STOCKTON, LL.D.....In charge of Department
 CHARLES CLINTON SWISHER, LL.D.....Professor
 LESLIE CLEVELAND McNEMAR, A.B.....Assistant Professor
 JOHN BALL OSBORNE, A.M.....Lecturer
 CLEMENT LAYTON BOUVE, A.B.....Lecturer

Second Section. For Undergraduates and Graduates.

20. PRINCIPLES OF INTERNATIONAL LAW.—A detailed course in the nature, sources, and sanctions of International Law, based upon the study of cases and reports, supplemented by letters and assigned readings. Throughout year. *Mon., Wed., Fri.*, at 5.00. A series of lectures by President STOCKTON occupying about one-fourth of the class meetings, with text-book and case instruction by Assistant Professor McNEMAR during the remainder of the class hours.

21. THE ELEMENTS OF DIPLOMACY.—A study of the genesis and organization of the Department of State; the diplomatic service; diplomatic usage; negotiation of treaties; methods and traditional principles of our foreign policy. Second half-year. *Tu., Sat.*, 5.50. President STOCKTON and Assistant Professor McNEMAR.

22. THE CONSULAR SERVICE.—The history and development of the Consular Service of the United States; its present organization; the rights, duties, and methods of procedure of consular officers; the consular conventions of the United States; comparative study of modern consular establishments. Two hours, first half-year. *Tu., Fri.*, at 8 a. m. Mr. OSBORNE.

29. HISTORY OF AMERICAN DIPLOMACY.—A general history of American foreign relations from the Treaty with France in 1778, with a special study of some of the more important questions of American foreign policy. A research course with readings from treaties and diplomatic correspondence. Throughout the year. *Mon., Fri.*, at 2.45. Professor SWISHER.

Third Section. Primarily for Graduates.

54. CONFLICT OF LAWS OR PRIVATE INTERNATIONAL LAW.—A course dealing with private laws in its international aspects. Among the topics treated are marriage and divorce, guardianship, wills, and the administration of estates, bankruptcy, and foreign judgments. Open only to students who have had instruction in the fundamental subjects of American Law. Four hours, second half-year. Professor GREGORY.

MATHEMATICS.

HOWARD LINCOLN HODGKINS, Ph.D.....	Professor
ASAPH HALL JR., Ph.D.....	Professor
H. GRANT HODGKINS, A.B.....	Instructor
WILLIAM WRIGHT FRASER, A.B., B.L.....	Lecturer

First Section. Primarily for Undergraduates.

3. SOLID GEOMETRY; COLLEGE ALGEBRA; PLANE TRIGONOMETRY. *Mon., Wed., Fri.*, at 9.15. Professor HODGKINS.

4. ALGEBRA; PLANE TRIGONOMETRY. *Mon., Wed., Fri.*, at 5.00. Mr. HODGKINS.

6. SOLID GEOMETRY; COLLEGE ALGEBRA; PLANE TRIGONOMETRY. *Mon., Wed., Fri.*, at 5.50. Mr. HODGKINS.

9. TRIGONOMETRY; ANALYTIC GEOMETRY. *Mon., Wed., Fri.*, at 10.15. Professor HODGKINS.

12. TRIGONOMETRY; ANALYTIC GEOMETRY. *Mon., Wed., Fri.*, at 5.50. Professor HODGKINS.

Second Section. For Undergraduates and Graduates.

20. DIFFERENTIAL AND INTEGRAL CALCULUS; Elements of Differential Equations. *Tu., Th., Sat.*, at 5.00. Professor HODGKINS.

21. DIFFERENTIAL AND INTEGRAL CALCULUS; Elements of Differential Equations. *Tu., Th., Sat.*, at 9.15. Professor HODGKINS.

Third Section. Primarily for Graduates.

50. DIFFERENTIAL EQUATIONS. Professor HODGKINS.

58. CELESTIAL MECHANICS. Theory of central forces; theory of parabolic and elliptic orbits. Lectures, with reading from the works of Gauss, Oppolzer, and Moulton. Professor HALL.

59. VECTOR ANALYSIS. This course is designed to give the elements of an analysis based chiefly on the method of the late Prof. Gibbs (of Yale), but extended so as to embrace the quaternion idea. Application is made to problems in both Geometry and Physics, including vector calculations applied to alternating currents. Mr. FRASER.

METEOROLOGY.

WILLIS LUTHER MOORE, D.Sc., LL.D.....	Professor
WILLIAM JACKSON HUMPHREYS, Ph.D.....	Professor

Third Section. Primarily for Graduates.

50. APPLIED METEOROLOGY. Investigation of the underlying laws governing meteorological phenomena and of the methods employed in practice for their interpretation and applications. Professor MOORE.

51. METEOROLOGICAL PHYSICS. This course presupposes collegiate training in general physics. Particular attention will be given to the interpretation of meteorological phenomena in the light of modern physics; and those wishing to make this their principal study will be assisted in the selection of a suitable problem for investigation and advised in the collection of data necessary to its solution. Professor HUMPHREYS.

PHILOSOPHY, PSYCHOLOGY, AND EDUCATION.

WILLISTON SAMUEL HOUGH, Ph.M.....	Professor
WILLIAM CARL RUEDIGER, Ph.D.....	Professor
WILLARD STANTON SMALL, Ph.D.....	Lecturer
STEPHEN ELLIOTT KRAMER, A.M.....	Lecturer
FLETCHER BASCOM DRESSLAR, Ph.D.....	Lecturer

First Section. Primarily for Undergraduates.

1a. GENERAL PSYCHOLOGY. An introductory study of the principal facts and laws of the mental life. First half-year. *Mon., Wed., Fri.*, at 10.15. Professor HOUGH.

1b. GENERAL PSYCHOLOGY. Parallel with Course 1a. First half-year. *Mon., Wed., Fri.*, at 5.00. Professor HOUGH.

2a. LOGIC AND THEORY OF KNOWLEDGE. Principles of deductive and inductive inference, followed by a study of the nature and structure of knowledge, its organization, and its relation to language. Second half-year. *Mon., Wed., Fri.*, at 10.15. Professor HOUGH.

2b. LOGIC AND THEORY OF KNOWLEDGE. Parallel with Course 2a. Second half-year. *Mon., Wed., Fri.*, at 5.00. Professor HOUGH.

(Courses 1 and 2 are intended to satisfy the requirements in Psychology and Logic of Groups I to V, (pp. 70-71). They are introductory to the remaining courses in Philosophy and Education, and should be taken in the Sophomore year by students intending to pursue advanced courses or courses in Education. Courses 1b and 2b are given in alternate years. Not given in 1912-13.

3. GENERAL PSYCHOLOGY. Designed specially for teachers in service. *Tu., Th.*, at 5.00. Professor RUEDIGER.

(Normal School graduates and teachers of experience may take Course 3 instead of Courses 1 and 2 in satisfaction of the requirement in Psychology and Logic.)

Second Section. For Undergraduates and Graduates.

20. HISTORY OF PHILOSOPHY. The chief epochs in the history of thought, with emphasis on their significance in the progress of civilization. Lectures, with assigned reading. First half-year. *Mon., Wed., Fri.*, at 11.15. Professor HOUGH.

21. ETHICS. An introductory study of moral conduct. Second half-year. *Mon., Wed., Fri.*, at 11.15. Professor HOUGH.

(Courses 20 and 21 should be preceded by Courses 1 and 2, or an equivalent.)

22. INTRODUCTION TO PHILOSOPHY. Lectures on the relation of philosophy to life and to the history of culture; and on the types of philosophical theory, with special reference to modern systems. Assigned reading, and discussions. Open to those who have had General Psychology. *Th.*, at 5.00. Not given in 1912-13. Professor HOUGH.

23. GREEK AND MODERN ETHICS, with special reference to the problems of moral education. Critical reading of selected Dialogues of Plato and the Ethics of Aristotle (Peter's translation), with lectures on modern systems of ethics and on the principles of moral education. *Mon.*, at 5.00. Professor HOUGH.

24. HISTORY OF PHILOSOPHY. The evolution of philosophic thought in relation to the progress of civilization and the interpretation of human life. Lectures, with collateral reading. *Tu., Th.*, at 5.00. Professor HOUGH.

25. EXPERIMENTAL PSYCHOLOGY. An introductory laboratory course. Experiments on sensation, movement, learning, effects of practice, memory, association, emotional manifestations, etc. *Mon.*, 4.00-5.50. Professor RUEDIGER.

(Course 25 should preferably be preceded by General Psychology, but may be taken parallel with either Course 1 or Course 3. The course in Experimental Psychology and Course 50 in Education will not both be given.)

26. ETHICS. Seminary course. A critical study of the historical systems of morals. Lectures, reports upon assigned reading, and discussions. *Mon.*, 4.00-5.50. Not given in 1912-13. Credit two hours. Professor HOUGH.

Third Section. Primarily for Graduates.

50. THE PRINCIPLES OF PSYCHOLOGY. A seminary course for the advanced study of fundamental problems. Designed for graduates taking a major or minor in Psychology. Open to undergraduates who obtain the permission of the instructor. Hours to be arranged. Credit, two hours. Professor HOUGH.

53. **ELEMENTS OF METAPHYSICS.** Selected fundamental problems. Designed for graduates taking a major in Philosophy. One hour. Professor HOUGH.

EDUCATION.

Course 1 or 2 in General Psychology and Logic must precede, or be taken parallel with, the first course in Education; but Normal School graduates and teachers of experience may satisfy this requirement by taking Course 3 in General Psychology. The systematic work in Education should begin either with the Principles of Education and of Teaching (Courses 21a and 21b), or with the History of Education (Course 22). Candidates for the Teacher's Diploma are required to complete before graduation Courses 21 (a and b); 22; 23 and 24, or 25; 30 (a and b), and 31. But teachers of experience may substitute an elective in Education, counting 2 units, for Course 31.

20. **THE ELEMENTS OF TEACHING.** An introductory course dealing with some of the fundamental conditions which determine proper methods of teaching in the elementary grades. The problems of mental growth, and the demands such growth make upon the teacher and upon society, will be considered in an untechnical way. Designed especially as a first course for grade teachers. Tu., Th., at 5.00. Dr. DRESSLAR.

21a. **PRINCIPLES OF EDUCATION.** The basis, aims, values, and essential content of education as revealed by biological, psychological, sociological, and ethical principles. First half-year. Tu., Th., at 4.00. Professor RUEDIGER.

21b. **EDUCATIONAL PSYCHOLOGY OR PRINCIPLES OF TEACHING.** The fundamental principles underlying the teaching process as revealed by psychology and logic. Second half-year. Tu., Th., at 4.00. Professor RUEDIGER.

(Courses 21a and 21b may be also taken with an additional hour's credit for extra reading.)

22. **HISTORY OF EDUCATION.** A general course in the historical development of educational theory and practice. Sat., 10.15-12.15. Professor RUEDIGER.

23. **CHILD STUDY.** The psychology, physiology, and hygiene of childhood and adolescence, with special reference to the problems of teaching. Kirkpatrick's *Fundamentals of Child Study*, supplemented by lectures, assigned reading, and reports. Sat., 10.15-11.15. Dr. SMALL.

24. **SCHOOL SANITATION AND HYGIENE.** A survey of the relations of education and health, including: The function of the school in promoting health; physical examination of children; medical inspection; physical education; diseases and defects incident to school life; the organization of instruction as related to fatigue; defective children; schoolhouse construction and sanitation. Lectures, reference work, and reports. Sat., 11.15-12.15. Dr. SMALL.

25. SECONDARY EDUCATION. A practical course for actual or prospective high-school teachers, considering the history and function of American and foreign secondary education, and the values, essential content, and method of presentation, of the high school branches. *Wed., Fri., 4.00.* Professor RUEDIGER.

26. ELEMENTARY EDUCATION. The following topics will be considered: (a) Comparison of the German, French, English, and American elementary education; (b) the relation of the elementary school to society and to the high school; (c) ways and means of securing realness in teaching the various elementary school branches; (d) the development of initiative and self-reliance in the elementary school pupil. *Wed., Fri., at 4.00.* Not given in 1912-13. Professor RUEDIGER.

(Courses 25 and 26 will be given in alternate years.)

27. SCHOOL ADMINISTRATION. The public school system: Its development; economic and political relations; organization of administration, financial and educational; problems of administration. Lectures, assigned reading, and reports. *Sat., at 9.15.* Dr. SMALL.

28. EXPERIMENTAL EDUCATION. After a brief introduction to the experimental investigation of sensation, movement, and association, this course will be devoted to experiments in educational psychology. Among the topics to be investigated will be: habit formation; memorizing; the transfer of practice; the effectiveness of various motives in study; the effectiveness of different methods of presentation; the application of the Binet tests. *Mon., at 4.00-5.50.* Not given in 1912-13. Professor RUEDIGER.

30a. CLASS MANAGEMENT. A consideration of the practical problems of the class-room, including economy in class management, attendance, discipline, physical conditions, the daily program, and the technique of class instruction. Class discussions, lectures, and assigned readings. *Wed., 5.00.* First half-year. Mr. KRAMER.

30b. SCHOOL SUPERVISION. A course involving the study of the relations of teachers to supervising officers, the principles of helpful criticism, the testing of class work, the conducting of teachers meetings, and the rating of teachers. Class discussions, lectures, and assigned readings. *Wed., at 5.00.* Second half-year. Mr. KRAMER.

31a. OBSERVATION. Both the application of general educational principles and the methods of teaching particular subjects are systematically observed and discussed. First half-year. Two hours. Hours to be arranged. Professor RUEDIGER.

31b. PRACTICE. The student-teacher is led in particular to form the connection between theory and practice and to establish right teaching habits. Second half-year. Two hours. Hours to be arranged. Professor RUEDIGER.

(Course 31 is open only to students registered in Teachers College.)

32. ADOLESCENCE. A consideration of the psychology of adolescence,

with special reference to the problems of secondary education. Lectures, readings, and special topics. *Sat.*, at 9.15. (Courses 27 and 32 will not both be given.) Dr. SMALL.

Third Section. Primarily for Graduates.

50. ADVANCED EDUCATIONAL THEORY. Among the topics considered will be the quantification and experimental study of education; retardation and the application of the Binet tests; statistical methods; significant periodical literature; the social implications of education. The course will include some laboratory work, and each student will be expected to investigate and report upon some special topic.

Open to qualified undergraduates upon consultation with the instructor. *Mon.*, 4.00-5.50. Two hours credit. Professor RUEDIGER.

(See Course 25 in Psychology.)

PHYSICS.

HOWARD LINCOLN HODGKINS, Ph.D.....	Professor
PERLEY GILMAN NUTTING, Ph.D.....	Assistant Professor
HAYNER HASKELL GORDON, Ph.D.....	Instructor
CHARLES EDWIN VAN ORSTRAND, M. S.....	Lecturer
HARVEY LINCOLN CURTIS, Ph.D.....	Lecturer

First Section. Primarily for Undergraduates.

1. GENERAL PHYSICS. A recitation and lecture course, embracing the fundamental principles of mechanics, sound, heat, light, and electricity. The lectures are illustrated by experiments. This is a required course for Sophomores in Engineering, and may be elected by the general student who has had a college course in trigonometry. *Mon., Wed., Fri.*, at 5.00. Professor HODGKINS.

2. LABORATORY PHYSICS. A selected series of experiments, mainly quantitative. Two two-hour periods. *Tu., Th.*, at 10:15 or *Tu., Th.*, at 7:30. Professor HODGKINS and Dr. GORDON.

3. INTRODUCTORY GENERAL PHYSICS. A lecture and recitation course, similar to Course 1, but less mathematical, and planned with reference to the needs of the general student. *Mon., Wed., Fri.*, at 1:45. Professor HODGKINS.

Second Section. For Undergraduates and Graduates.

21. HEAT. A lecture and laboratory course, based on Preston's Theory of Heat and Poynting and Thomson's Heat. Three periods. Not given in 1912-13.

22. **LIGHT.** A lecture and laboratory course, based on Preston's Theory of Light and Schuster's Theory of Optics. Three periods. Not given in 1912-13.

Third Section. Primarily for Graduates.

55. **SPECTROSCOPY.** An experimental study of the flame, arc, spark, and vacuum tube spectra of the chemical elements; variations in spectra produced by varying excitation; spectra of mixed gases and alloys; identification of elements; photography of spectra. Assistant Professor NUTTING.

57. **KINETIC THEORY.** The physical properties of gases discussed from the standpoint of General Dynamics. Free path phenomena including viscosity, diffusion, heat conduction, and molecular aggregation and dissociation. Jean's Dynamical Theory of Gases. A lecture and seminar course. *Mon.* at 4.50. Mr. VAN ORSTRAND.

58. **ELASTICITY.** The physical properties of solids as applied to problems in geophysics. The theories of homogeneous stress and strain. Potential energy of strained solids. Transmission of force. Propagation of earthquake waves. Love's Mathematical Theory of Elasticity.

A lecture and seminar course. *Mon.*, 4.50. Not given in 1912-13. Mr. VAN ORSTRAND.

59. **THEORETICAL ELECTRICITY.** A lecture course on the Mathematical theory of Electricity, using J. J. Thomson's Elements of Electricity and Magnetism as a basis. The fundamental propositions of Electrical theory are discussed, and their applications to practical problems are pointed out. The solution of a number of problems is also required. Dr. CURTIS.

POLITICAL SCIENCE.

JOHN WILMER LATIMER, LL.B.....	Assistant Professor
BLAINE FREE MOORE, A.M.....	Assistant Professor
LESLIE CLEVELAND McNEMAR, A.B.....	Assistant Professor
JOHN BALL OSBORNE, A.M.....	Lecturer

For Undergraduates and Graduates.

20. **ELEMENTS OF POLITICAL SCIENCE.**—An introductory course in political science, dealing with the origin, nature, and functions of the State; the fundamental political concepts such as the State, sovereignty, government, law, civil liberty; the forms of State; the forms of government; distribution of the powers of government. Recommended as a prerequisite for the succeeding courses. Text-book and assigned reading. Three hours, first half-year. *Mon., Wed., Fri.*, at 5.00. Assistant Professor MOORE.

21. AMERICAN GOVERNMENT. A general introductory course to American Government. The establishment of the Federal Constitution; a descriptive study and general survey of the national government and a more detailed study of the State and local governments. Lectures, text and assigned readings. Three hours, first half-year. *Mon., Wed., Fri.*, 5.50 Assistant Professor MOORE.

22. NATIONAL GOVERNMENT. A continuation of the preceding course. A detailed study of the federal government taking up the executive, Congress and the judiciary. Lectures, text and assigned readings. Three hours, second half-year. *Mon., Wed., Fri.*, at 5.50 Assistant Professor MOORE.

23. MUNICIPAL GOVERNMENT IN THE UNITED STATES.—A study of the organization and administration of city government in the United States with a limited comparative study of European conditions. The growth of cities; their relation to the State; powers and liabilities of municipal corporations; municipal problems such as those relating to local transportation, police, light and water supply, municipal ownership of public utilities. Three hours, first half-year. *Mon., Wed., Fri.*, at 1.45. Assistant Professor MOORE.

24. MUNICIPAL GOVERNMENT IN EUROPE.—The legal position of the European City; its powers and liabilities; governmental organization and methods of administration; municipal problems in Europe and their treatment; municipal ownership. Three hours, second half-year. Not given in 1912-13. Assistant Professor MOORE.

25. EUROPEAN GOVERNMENTS.—A study of the organization and actual workings of the governments of France, Germany, Italy, Switzerland: a discussion of the executive, legislative, and judiciary and internal political conditions of each country. Lectures and assigned readings. Three hours, second half-year. *Mon., Wed., Fri.*, at 5.00. Assistant Professor MOORE.

26. AMERICAN POLITICAL THEORIES.—A study of the development of American political ideas. Political theories of the colonial, the revolutionary, and the formative period; the growth of democratic ideas; political theories of the slavery and Civil War controversies; modern political theories in the United States. Two hours, second half-year. Not given in 1912-13. Mr. McNEMAR.

27. POLITICAL PARTIES.—A study of the organization and methods of action of political parties in the United States. Growth of the party system; primary and convention system; permanent party organization; elements of cohesion in parties; reform movements and measures; theory of the party system. Prerequisites courses 20-21. Three hours, first semester. *Mon., Wed., Fri.*, at 9.15. Mr. McNEMAR.

28. COMPARATIVE CONSTITUTIONAL LAW.—A comparative study of the constitutional and governmental forms of the United States, Great Britain, France, and Germany as representative types of modern con-

stitutional government; a comparison of the constitutional powers of the more important Federal governments. Two hours, first half-year. Not given in 1912-13. Assistant Professor MOORE.

40. ADMINISTRATIVE LAW AND OFFICERS.—Administrative action; exercise of official powers; discretion; orders; enforcement; evidence. Judicial control; action against officers, municipal corporations, and the State; extraordinary legal remedies. Public officers; nature of office; eligibility; appointment, removal; execution of authority; liability. Freund's Cases on Administrative Law. Three hours, second half-year. *Mon., Wed., Fri., at 9.15.* Mr. McNEMAR.

41. CONSTITUTIONAL LAW. A course dealing with the fundamental principles of constitutional law; a study of cases showing the relation between the federal and state governments; constitutional powers of the federal government; power and limitations of the states in regard to commerce, police, taxation, etc. Lectures and case book. Two hours, second half-year. *Tu., 5.00-6.40.* Assistant Professor MOORE.

42a. COLONIAL GOVERNMENT.—A historical review of the colonial system and policies of the world; reasons for colonial expansion; the theory of the relationship between States and their colonies; the institutions and methods devised by the central government for colonial administration and control. Lectures and assigned readings. Two hours, first half-year. Not given in 1912-13. Assistant Professor MOORE.

42b. COLONIAL ADMINISTRATION.—A study of the executive, legislative, and judicial organization and the administration of laws in existing colonies; an investigation of the industries, labor, and education in these colonies. The organization and administration of the insular possessions of the United States. Lectures and assigned readings. Two hours, second half-year. Not given in 1912-13. Assistant Professor MOORE.

Primarily for Graduates.

56. SEMINAR IN POLITICAL SCIENCE.—Students competent to undertake advanced work along special lines are admitted to this seminar for the presentation and discussion of essays on topics belonging to the field of political science proper. Hours and credit to be arranged. Assistant Professor MOORE.

ROMANCE LANGUAGES AND LITERATURES.

GEORGE NEELY HENNING, A.M.....Professor
 WALTER EDGAR HANCOCK, A.B.....Assistant

FRENCH.

First Section. Primarily for Undergraduates.

1. GRAMMER, composition, drill in pronunciation. Fraser and Squair's French Grammar. Translation and reading of nineteenth century fiction and history. (400-500 pages.) For beginners. *Mon., Wed., Fri.*, at 11.15. Professor HENNING.

2. Parallel with Course 1. *Tu., Th., Sat.*, at 5.00. Professor HENNING.

4. TRANSLATION, reading, grammar, composition. Fraser and Squair's French Grammar. Feuillet, *le Roman d'un jeune homme pauvre*; other texts to be announced. Open to students who have passed in French 1 or 2, or have fulfilled the admission requirements in Elementary French. *Tu., Th., Sat.*, at 5.00. Professor HENNING.

6. GENERAL SURVEY OF FRENCH LITERATURE, nineteenth to seventeenth centuries. Translation, collateral readings, and reports thereon, lectures on literature and the history of the language, composition. Open to students who have passed in Course 4, or have fulfilled the admission requirements in Advanced French. *Mon., Wed., Fri.*, at 3.45. Professor HENNING.

Second Section. For Undergraduates and Graduates.

Courses in this group are open to students who have passed in Course 6, or who otherwise satisfy the instructor of their fitness to take them.

21. SEVENTEENTH CENTURY LITERATURE; history, philosophy, criticism, memoirs, letters, eloquence, drama, fiction, poetry. Balzac, Descartes, Pascal, La Rochefoucauld, La Bruyère, Boileau, Saint-Simon, Mme. de Sévigné, Bossuet, Corneille, Racine, Molière, Fénelon, Malherbe, La Fontaine, etc. Translation, collateral reading and reports thereon, lectures on literature and history. *Mon., Wed., Fri.*, 2.30. Professor HENNING.

25. NINETEENTH CENTURY LITERATURE; history, philosophy, criticism, memoirs, travels, fiction, drama, lyric poetry. Thierry, Michelet, Mignet, Thiers, Taine, Sainte-Beuve, Brunetière, France, Lemaitre, Renan, Gautier, Mme. de Stael, Chateaubriand, Hugo, George Sand, Mérimée, Balzac, Flaubert, Daudet, Maupassant, Loti, Musset, Dumas fils, Augier,

Maeterlinck, Rostand, Lamartine, Vigny, the Romantic poets, the Parnassians, the Symbolists, etc. Translations, collateral reading, and reports thereon, lectures on literature and history. Not given in 1912-13.

Third Section. Primarily for Graduates.

57. THE COMEDIES OF MOLIERE. Professor HENNING.

60. THE ROMANTIC MOVEMENT IN FRANCE, with some reference to the same movement in England and Germany. Professor HENNING.

Other courses may be arranged for competent graduates.

SPANISH.

First Section. Primarily for Undergraduates.

1. GRAMMAR, COMPOSITION. Hills and Ford's Spanish Grammar.

Translations and reading of nineteenth century fiction and drama. Open to first-year students only by permission of the instructor. *Mon., Wed., Fri., 5.00.* Mr. HANCOCK.

2. TRANSLATION OF MODERN PROSE AND POETRY, with much collateral reading. *Mon. Wed., Fri., 10.15.* Professor HENNING.

PROFESSIONAL DEPARTMENTS.

DEPARTMENT OF LAW.

FACULTY.

CHARLES HERBERT STOCKTON, LL.D.....PRESIDENT OF THE UNIVERSITY
CHARLES NOBLE GREGORY, A.M., LL.D.....Dean and Professor of Law
MELVILLE CHURCH, LL.M.....Professor of the Law of Patents
WALTER COLLINS CLEPHANE, LL.M.....Professor of Law
EDWIN CHARLES BRANDENBURG, LL.M.....Professor of Law
ARTHUR PETER, LL.M.....Professor of Law
JOHN PAUL EARNEST, A.M., LL.M.....Professor of Law
WENDELL PHILLIPS STAFFORD, LL.D.....Professor of Law
JOHN WILMER LATIMER, LL.B.....Assistant Professor of Law
EVERETT FRASER, A.B., LL.B.....Assistant Professor of Law
HENRY CRAIG JONES, A.B., LL.B.....Assistant Professor of Law
MERTON LEROY FERSON, A.M., LL.B.....Assistant Professor of Law
ALFRED BUHRMANClerk of the Moot Court
WILLIAM CABELL VAN VLECK, B.A., LL.B.. Secretary of the Department
of Law and Instructor in Law

COURT OF APPEALS.

WILLIAM F. MATTINGLY, LL.D.....Chief Justice
JOHN BELL LARNER, LL.D.....Associate Justice
STANTON JUDKINS PEELE, LL.D.....Associate Justice

GENERAL STATEMENT.

This Department, established in 1865, is the oldest school of law in the city of Washington. Its course of instruction for the degree of Bachelor of Laws, originally requiring but two years, was gradually expanded, until in 1898, in accordance with the recommendation of the American Bar Association, it was increased to three years. The Faculty has also shown a gradual increase in numbers commensurate with the expansion of the course and the growing number of students in attendance. Beginning with 1903, the Board of Trustees adopted the policy of

placing most of the important topics of substantive law under the charge of trained professional teachers giving their whole time to the work of legal instruction. Those branches of the law connected with practice are under the charge of professors who are actively engaged in the administration of the law either at the bar or on the bench.

In 1877 a year of graduate work, leading to the degree of Master of Laws, was added to the course of instruction offered. A special course in Patent Law was added in 1895.

In 1900 the Law Department was one of the group of law schools which organized the Association of American Law Schools, and it has remained a member of this Association since that time. This Association includes thirty-seven of the best and most progressive law schools of the country and is committed to the policy of advancement in legal education.

THE ADVANTAGES OF WASHINGTON FOR THE STUDY OF LAW.

To students of law, the peculiar advantages of Washington are manifest. The Supreme Court of the United States is in session during practically the entire school year. Students have the rare opportunity of hearing the arguments presented by leading American lawyers and the decisions of this high tribunal, which are delivered orally each Monday, upon the important legal questions which come before that court for final determination. Congress is in session during the winter, and here students see the practical workings of the largest and most important law-making body. The Department of Justice, the legal branch of the Federal Government, is also located in Washington. Besides the above there are also the United States Court of Claims, the United States Court of Customs Appeals, the United States Commerce Court, and the various local courts of the District of Columbia. The last-named courts exercise the unusual dual function of State and Federal courts. By means of attendance upon these courts students may familiarize themselves with all branches of legal procedure.

HOURS FOR LECTURES.

The hours of instruction are 7:50-8:40 a. m., 9 a. m.-12 m. and 4:50-6:30 p. m. Many of the courses are duplicated, so that a student may, if he so desires, confine his work largely either to the forenoon or to the afternoon. Students who desire, or are compelled by circumstances, to support themselves by employment in the Government Service or elsewhere, or who desire to obtain practical experience in an attorney's office in addition to their work in law school, will find this arrangement of hours especially desirable. Such students may

complete the full course for the degree, confining their attendance entirely from 4:50-6:30 p. m., or attending partly from 7:50-8:40 a. m. and partly from 4:50-6:30 p. m.

LOCATION.

The Department of Law occupies the entire fifth and sixth floors of the New Masonic Temple, corner of New York Avenue, Thirteenth and H Streets N. W., and is easily accessible from all parts of the city. The quarters are well equipped with commodious lecture rooms, moot court rooms, offices, the law library, and a students' room.

ACADEMIC YEAR.

The academic year extends through more than eight months, beginning on the last Wednesday in September and ending on the Wednesday following the Wednesday nearest the first day of June, and is divided into two half-years, the second half-year beginning on the first day of February. The session of 1912-13 begins on Wednesday, September 25 and closes Wednesday, June 11. Since a number of the courses given during the first half-year are completed before the beginning of the second half-year, it is possible for a student to enter on the 1st of February of any year and be graduated three years from that date, receiving his degree at the Winter Convocation, held on February 22, of each year.

Students who apply for registration not later than two months from the close of registration or students absent for unavoidable cause for not exceeding two months may remove the condition in attendance by study for a period of one and one-half times the period of the absence, under a practitioner during such time as the Department of Law is not in session, proof thereof to be made by affidavit of the practitioner.

ADMISSION.

I. FOR THE DEGREE OF BACHELOR OF LAWS.

In conformity with the requirements of the Association of American Law Schools, of which this school is a member, applicants for admission as candidates for the degree of Bachelor of Laws must be at least eighteen years of age and must have had educational training sufficient to satisfy the entrance requirements of the Department of Arts and Sciences of the University. In order to satisfy these requirements, which are set out at length in the General Catalogue of the University, students must present credits aggregating 15 units, which are broadly equivalent to a four years' high school course. A unit represents approximately one year's study in a subject in a preparatory

or high school. The fifteen units must include English 3 units, Mathematics 2 units, and 2 units of one of the following languages: Latin, Greek, French, German or Spanish. The remaining eight units are elective. Units may be satisfied in general as follows:

English, 3 units.

Requirements recommended by the Conference on Uniform Entrance Requirements in English, Feb. 22, 1909, in Grammar, Composition and Literature.

Latin

- Elementary, 2 units
 - Grammar and Composition
 - Caesar
- Advanced, 2 units
 - Cicero
 - Virgil
 - Prose Composition

Greek

- Elementary, 2 units
 - Grammar and Composition
 - Xenophon
- Advanced, 1 unit
 - Homer

French

- Elementary, 2 units
- Advanced, 2 units

Spanish

- Elementary, 2 units

Other subjects which will be accepted on the basis of one unit for a year's work are botany, zoology, physiology, physiography, political economy and other accredited high school subjects.

Manual Training High School subjects:

- Shopwork, not exceeding 2 units
- Domestic Science, not exceeding 2 units
- Domestic Arts, not exceeding 2 units

German

- Elementary, 2 units
- Advanced, 2 units

History

- Ancient, 1 unit
 - Greek and Roman
- Mediaeval and Modern European, 1 unit
 - English, 1 unit
- American and Civil Government, 1 unit

Mathematics

- a. Algebra
 - Elementary, 1 unit
 - Advanced, $\frac{1}{2}$ unit
- b. Plane Geometry, 1 unit
- c. Solid Geometry, $\frac{1}{2}$ unit
- d. Plane Trigonometry, $\frac{1}{2}$ unit

Physics, 1 unit

- Recitations and Laboratory work

Chemistry, 1 unit

- Recitations and Laboratory work

Business High School subjects:

- Accounting and Finance, 1 unit
- Bookkeeping, 2 units
- Business Organization, 1 unit
- Commercial Law, 1 unit
- Government and Industrial Problems, $\frac{1}{2}$ unit
- Commercial History, $\frac{1}{2}$ unit
- Commercial and Physical Geography, $\frac{1}{2}$ unit

Applicants for admission on certificate should secure formal certificates setting forth the credits claimed, and present these certificates attached to their application forms. All applications for admission should be addressed to the Secretary of the Department of Law, who will, upon request, furnish proper blanks and detailed information as to entrance examinations.

2. FOR THE DEGREE OF MASTER OF LAWS OR MASTER OF PATENT LAW.

Candidates for these degrees must be at least twenty-one years of age and hold the degree of Bachelor of Laws from an institution substantially complying with the requirements of the Association of American Law Schools, of which this school is a member.

3. FOR THE COURSE IN PATENT LAW.

Only those students who are graduates of an approved law school or members of the bar in good standing will be admitted as students in the course in Patent Law.

4. SPECIAL STUDENTS.

Persons who for any reason do not qualify as candidates for a degree may, with the assent of the professors whose courses they elect to take, be admitted as special students.

5. AUDITORS.

Persons are allowed to register and to attend classes as auditors for the regular fees without being required to take active part in the exercises or to pass examinations, but no credit will be allowed for such attendance only.

ADVANCED STANDING.

Students may be admitted to advanced standing in the second or third year classes upon satisfying the requirements for the work of the preceding year or years. These requirements may be met by presenting a certificate from any law school of accredited standing showing that the student has successfully completed equivalent courses, or by passing the regular examinations set for that purpose at the beginning of the term, after the student has shown that he has pursued a course of study in a law school in the subjects upon which he is examined, covering at least as many hours as are required for such subjects in this University. No credit is given for study pursued in a law office, except as explained above under the statement as to the Academic Year.

All examinations that may be required of applicants for advanced standing are held during the first week of each session.

CREDIT GIVEN BY OTHER SCHOOLS FOR WORK DONE.

Because of the fact that the Law Department is a member of the Association of American Law Schools the work done by a student is given a maximum of credit by the other law schools of the country both as to time and, as far as the authorities of this school have been able to ascertain, as to subjects. This enables students who, for any reason, are unable to complete their work in Washington to continue it at other institutions with a minimum of loss of time and work.

METHOD OF INSTRUCTION.

Instruction in subjects of substantive law is based mainly upon the study and discussions of cases.

In the discussions in the class room every effort is made to lead the student to a clear understanding of fundamental legal principles and to afford him scientific training in the best method of study and legal reasoning.

These courses are mainly given by members of the law faculty who give their entire time to the Law School and are in daily attendance.

Subjects involving the adjective law are taught by lectures, study of text books and cases, and by practical work in pleading, drafting and the trial of moot cases. These courses are in charge of experienced members of the bar in active practice.

UNDERGRADUATE PROFESSIONAL COURSES.

Undergraduate students in Arts and Sciences upon the completion of forty-five units of credit may take the first year's work of the course for Bachelor of Laws, crediting them fifteen units, on the completion of which they may receive the academic degree.

COURSES OF INSTRUCTION.

A. Leading to the Degree of Bachelor of Laws.

The course of instruction leading to the degree of Bachelor of Laws extends through a period of at least three years. An average of twelve hours class work per week for three years is required of all candidates for this degree.

Students devoting their whole time to the study of law may, with the permission of the Dean, select additional subjects from the second and third years, provided the aggregate of the hours taken does not exceed fifteen a week. Such excess credits may be applied toward the degree of Master of Laws or of Master of Patent Law.

Students not devoting their whole time to the study of law are urged to devote more than three years to the completion of the course. Many students find it more satisfactory to do so. In case of unsatisfactory work students are required so to extend the period of study.

FIRST YEAR SUBJECTS.*First Semester.*

* Contracts (A). Professor GREGORY. Three hours a week. Williston's Cases on Contracts.

Criminal Law. Professor EARNEST. Two hours a week. Clark's Criminal Law and Mikell's Cases on Criminal Law.

Domestic Relations. Mr. VAN VLECK. Two hours a week. Kales' Cases on Persons.

* Property I (A). Assistant Professor FRASER. Three hours a week. Gray's Cases on Property, Volume I.

* Torts (A). Assistant Professor JONES. Two hours a week. Ames & Smith's Cases on Torts. (Vol. I, 1910 Ed., Vol. II, 1909 Ed.)

Second Semester.

Agency. Assistant Professor FERSON. Three hours a week. Wambaugh's Cases on Agency.

* Contracts (B). Professor GREGORY. Three hours a week. Williston's Cases on Contracts.

Criminal Procedure. Professor EARNEST. One hour a week. Clark's Criminal Procedure and selected cases.

* Property I (B). Assistant Professor FRASER. Three hours a week. Gray's Cases on Property, Volumes I and II.

* Torts (B). Assistant Professor JONES. Two hours a week. Ames & Smith's Cases on Torts. (Vol. I, 1910 Ed., Vol. II, 1909 Ed.)

SECOND YEAR SUBJECTS.*First Semester.*

* Common Law Pleading and Practice. Professor CLEPHANE. Two hours a week. Tyler's Stephen on Pleading.

* Equity I. Professor STAFFORD. Two hours a week. Ames' Cases on Equity Jurisdiction.

* Evidence (A). Professor PETER. Two hours a week. McKelvey on Evidence and Thayer's Cases on Evidence.

Municipal Corporations. Assistant Professor JONES. Two hours a week. Beale's Cases on Municipal Corporations. Given in 1912-13 and in alternate years thereafter.

* Property II (A). Assistant Professor FRASER. Three hours a week. Gray's Cases on Property, Volumes II and III.

* Required Subjects.

Sales. Assistant Professor FERSON. Three hours a week. Williston's Cases on Sales. (Second Edition.) (Given in 1912-13 and in alternate years thereafter.)

Second Semester.

Damages. Assistant Professor JONES. Two hours a week. Beale's Cases on Damages. (Not given in 1912-13 and in alternate years thereafter.)

* Equity II. Professor STAFFORD. Two hours a week. Ames' Cases on Equity Jurisdiction.

* Equity Pleading and Practice. Professor CLEPHANE. One hour a week. Shipman on Equity Pleading.

* Evidence (B). Professor PETER. Two hours a week. McKelvey on Evidence and Thayer's Cases on Evidence.

Insurance. Assistant Professor FERSON. Three hours a week. Wambaugh's Cases on Insurance. (Not given in 1912-13 and in alternate years thereafter.)

Partnership. Mr. VAN VLECK. Two hours a week. Case book to be announced. (Given in 1912-13 and in alternate years thereafter.)

* Property II (B). Assistant Professor FRASER. Three hours a week. Gray's Cases on Property, Volume V.

Public Service Companies. Assistant Professor JONES. Two hours a week. Wyman's Cases on Public Service Companies. Second edition. (Given in 1912-13 and in alternate years thereafter.)

Quasi-contracts. Mr. VAN VLECK. Two hours a week. Scott's Cases on Quasi-contracts. (Not given in 1912-13 and in alternate years thereafter.)

THIRD YEAR SUBJECTS.

First Semester.

Bankruptcy. Professor BRANDENBURG. One hour a week.

* Bills and Notes. Assistant Professor FERSON. Three hours a week. Hufcutt's Negotiable Instruments: Statutes, Cases and Authorities. (Second Edition.)

Brief Making. Assistant Professor LATIMER.

Conflict of Laws (A). Professor GREGORY. Two hours a week. Lorenzen's Cases on Conflict of Laws.

Legal Tactics and Ethics. Professor CLEPHANE. One hour a week.

* Moot Court. Professors CLEPHANE, EARNEST and LATIMER. Two hours a week.

Organization and Management of Corporations. Professor CLEPHANE. One hour a week. Clephane on the Organization and Management of Corporations.

* Required Subjects.

Patent Law (A). Professor CHURCH. Two hours a week.

* Private Corporations (A). Assistant Professor JONES. Two hours a week. Warren's Cases on Corporations.

Suretyship. Assistant Professor JONES. Two hours a week. Ames' Cases on Suretyship.

Second Semester.

Conflict of Laws (B). Professor GREGORY. Two hours a week. Lorenzen's Cases on Conflict of Laws.

Constitutional Law. Assistant Professor FRASER. Two hours a week. Case Book to be announced.

Federal Procedure. Professor BRANDENBURG. One hour a week.

* Moot Court. Professors CLEPHANE, EARNEST and LATIMER. Two hours a week.

Patent Law (B). Professor CHURCH. Two hours a week.

Preparation of Legal Instruments. Assistant Professor LATIMER. One hour a week.

* Private Corporations (B). Assistant Professor JONES. Two hours a week. Warren's Cases on Corporations.

Trusts. Assistant Professor FERSON. Three hours a week. Ames' Cases on Trusts.

Wills and Administration. Professor Peter. One hour a week.

Second and third year subjects, not required and given in alternate years, are open to both second and third year students.

Third Year students may elect also in the College of the Political Sciences:

Administrative Law. Mr. McNEMAR. Three hours a week, second semester. Freund's Cases on Administrative Law.

B. Leading to the Degree of Master of Laws.

Students admitted as candidates for the degree of Master of Laws are required to elect subjects, not previously taken, covering a minimum of ten hours a week. These may be freely elected from the subjects offered by the Faculty of Law and from the following subjects given in the College of the Political Sciences:

International Law.

Comparative Constitutional Law.

Administrative Law.

Taxation.

Any excess credits obtained in this Law School in the course leading to the degree of Bachelor of Laws may be applied toward the Master's degree. The degree of Master of Laws will not be conferred, however, until one year after the receipt of the Bachelor's degree.

* Required Subjects.

Advanced Practice.—Candidates for the Master's degree may also elect advanced practice work in the Moot Court, receiving therefor a credit of two hours for the year.

C. Leading to the Degree of Master of Patent Law.

A candidate who has successfully completed the requirements prescribed for the degree of Master of Laws, if he has duly completed and received credit for the courses in Patent Law and Federal Procedure, may elect to become a candidate for the degree of Master of Patent Law instead, and that degree may be conferred upon him, but the above mentioned topics shall be counted only toward one degree, and shall not be available for the degree in Patent Law, if they have been counted toward any other degree.

COURSE IN PATENT LAW.

A special course in Patent Law and Patent Law Practice is given by Professor Church. The purpose of this course is to prepare those taking it for practice in all matters involving the law of patents. The course extends throughout one year, with two lectures or sessions of the Moot Court each week. (For the admission requirements for this course, see Admission Requirements, *ante*.)

This course may be elected and counted by students toward the degree of Bachelor of Laws, and such students will be required to take only the first semester of the regular moot court work. A certificate, under the seal of the University, is granted to all students who complete this course.

COURSES IN PRACTICE.

A. Moot Court Work.

1. For the degree of Bachelor of Laws:

Particular stress is laid upon moot court work. Aside from the practice court connected with the course in Patent Law, there are four courts in which undergraduate students pursue their work. Three of these are *nisi prius* courts and are presided over by members of the Washington Bar in active practice. The fourth is a Court of Appeals to review the cases tried in the courts of first instance. This court is composed of the Chief Justice of the United States Court of Claims and of members of the Washington Bar.

Every third-year student, before receiving the Bachelor's degree, is required to prepare the pleadings in and prosecute to judgment the required number of cases in the *nisi prius* courts, with the privilege of appeal to the appellate tribunal. At least two hours in each week during the year must be spent by each third year student in active partici-

pation in moot court work in the court room to which he is assigned. Students electing Patent Law will be required, in view of the special moot court work in that course, to take only the first half-year of the regular moot court work.

Statements of facts are furnished, such as would be related to a lawyer in active practice by his client. Each student must determine whether or not upon such facts the particular case in hand is one of common law or equitable cognizance. He must then frame his pleadings, serve his writs, and answer his adversary's pleadings until issue is joined in legal manner, after which the case is brought on for hearing in strict accordance with the rules of actual practice. Juries are empaneled in accordance with settled legal procedure, witnesses are examined and cross-examined, and the case conducted through all the various stages of the trial or hearing down to and including the judgment or decree, after which, should the case be appealed, it must be carried through the appellate court, involving the preparation of the record on appeal, briefs of counsel, etc.

2. For the degree of Master of Laws:

The same facilities for moot court work as are described above are afforded in the course leading to the degree of Master of Laws. In this course, however, the nature of the cases assigned is somewhat different, involving, in addition to the ordinary cases at common law or in equity, cases of a special character, such as habeas corpus, certiorari, quo warranto, injunction, mandamus, extradition, replevin, attachment, etc. All candidates for this degree taking moot court work are required to carry through the appellate court each case assigned to them.

3. Officers and Equipment:

The clerk of the Moot Court is one of the assistant clerks of the Supreme Court of the District of Columbia, but his assistants in each court room are chosen from the student body, from whose ranks are also drawn the criers, jurors, and other officials, thus giving to the students the benefit of practice in administrative judicial machinery. The Moot Court is to all intents and purposes an actual court. The rooms in which the sessions are held are fitted up with judges' benches, clerks' desks, jury boxes, and counsel tables, and from the time the crier announces that the court is in session until he announces its adjournment the procedure is identical with that of a regular judicial tribunal.

It is believed that any student who gives the proper attention to this feature of the law curriculum will be enabled to go out from this institution and creditably try cases in court, although he may never have been in an actual court room.

A careful record is kept of the work of each student, both as to his pleadings and his conduct of the case in court, and the ratings thus

given determine, in connection with his ratings upon other subjects, whether or not he is entitled to a degree.

B. Brief Making.

In view of the rapidly increasing bulk of our case law, it becomes absolutely indispensable that students should be taught to find authorities in point, to collate them, and to present them to the court in a clear and concise form. In order to afford this training a course in Brief Making is given. This course will be conducted in part in the Library of the Department of Law, so that the use of the digests and reports may be illustrated.

C. Preparation of Legal Instruments.

Students are instructed in this course in the actual preparation of deeds, mortgages, wills, assignments, contracts, partnership agreements, and other legal instruments which a lawyer is called upon to prepare. Statements of facts are furnished to the class by the professor in charge, and each student is required to prepare the various forms of instruments. These are corrected by the professor and are discussed and criticised in class. Careful consideration is given to special forms of execution and acknowledgment when one of the parties to the instrument is a corporation, a partnership, a married woman, and the like.

D. Legal Tactics and Ethics.

Every young lawyer entering upon his professional career is desirous of availing himself of the experience of an older practitioner and of learning many things which are not taught and cannot be taught from books. It is to meet the needs of this class of men that this course is given. It is in charge of a member of the Washington Bar whose practice has been an active one, extending over a period of many years.

A short introductory talk is given upon the relations between attorney and client, including the important subject of fees, after which the student is given the benefit of practical hints upon the manner of starting in practice and opening and furnishing an office, with suggestions as to office systems.

The student is told how to listen intelligently to his client's grievances; how to draw up the pleadings arising out of these grievances; how to prepare for trial the case thus made, including the work of preparing the evidence; how to try the case and examine and cross-examine witnesses; the manner of making up the record, and conducting the argument on appeal, including the use of authorities in court. The Canons of Professional Ethics adopted by the American Bar Association are studied in this course. Practical instruction in Extraordinary Legal Remedies constitutes a part of this course.

EXAMINATION AND GRADES.

Regular Examinations:

Written examinations are held at the close of each semester. These examinations are final as to the work of that semester. All students, unless specially excused by the Dean, are required to take the regular examinations in the subjects pursued.

No student, except by special permission of the Dean, will be allowed to take an examination in any subject unless he shall be regularly registered and have been in regular attendance upon the lectures and have done all the work required in the course of instruction upon that subject.

Grades:

At all examinations the grading of students will be indicated by the letters A, B, C, D, E, and F, representing, respectively, *excellent, good, satisfactory, fair, conditioned, and failed.*

Conditions and Failures:

A student receiving the grade of F (failed) in any subject will be required to repeat the subject.

A student receiving the grade of E (conditioned) in any subject, will be required to repeat that subject unless he pass the *next* regular examination for removal of conditions with a grade of at least C.

Regular examinations for the removal of conditions are held during the first week of each academic year. Special examinations for the removal of conditions are held at the end of each academic year for the benefit of candidates for the Bachelor's degree, who have been conditioned in not more than six semester hours during their last year. Applications for permission to take any of these examinations must be made in writing to the Secretary of the Department of Law not later than three days before the date for which the examination is scheduled.

Students who have failed in more than twelve semester hours in the preceding year will not be allowed to register without special permission from the Dean.

Special Examinations:

No special examinations, other than those above provided for, will be granted to any students except those of the graduating class who, for good cause, shall have been excused by the Dean from taking any regular examination during the third year.

Attendance:

Regular attendance is required in all courses; and the examination grade of any student in any course may be withheld and the passing of

another examination or the repetition of the course may be required on the sole ground of unsatisfactory attendance.

Election of Courses:

No student shall be allowed to register in courses aggregating more than fifteen hours during any one semester without first obtaining the permission of the Faculty.

Every student who is a candidate for graduation with the degree of Bachelor of Laws in his third year shall take and pass in each semester of his third year courses aggregating ten hours.

Election of courses to be taken must be made in all cases within ten days after the beginning of the semester in which such courses are given.

DEGREES.

1. BACHELOR OF LAWS.

The degree of Bachelor of Laws will be conferred upon students who have studied law for a period of at least three years and passed satisfactory examinations upon subjects aggregating thirty-six year hours, and whose attendance and conduct have been satisfactory to the Faculty. The degree will not be conferred upon students deficient in Bills and Notes, Common Law Pleading and Practice, Contracts, Corporations, Equity I and II, Equity Pleading and Practice, Evidence, Moot Court, Property I, II and III, and Torts.

The degree of Bachelor of Laws *with distinction* will be awarded to students whose average percentage in all subjects is equivalent to the grade of A.

2. MASTER OF LAWS OR MASTER OF PATENT LAW.

The degree of Master of Laws or Master of Patent Law will be conferred upon students who have completed the work prescribed for these degrees with the grade of C or better, and whose attendance and conduct have been satisfactory to the Faculty.

LAW LIBRARY AND READING-ROOM.

A well-equipped working library, comprising about 5,500 volumes, is open to the students from 8.30 a. m. to 10.00 p. m. Competent librarians are in charge and will give students assistance in looking up subjects and in the use of books.

The library contains the complete decisions of the highest courts of thirty-two states and the District of Columbia, the complete reports of the United States Supreme Court and the other Federal courts, the complete National Reporter System, the Century, Decennial and American Digests, the various encyclopaedias of law, the Lawyers Reports Annotated, the American Decisions, American Reports and American

State Reports, the English Common Law and Chancery Reports, the English Reprints, the Law Journal Reports since 1865, and about eight hundred standard text-books and legal periodicals.

In addition to these facilities, the students have free access to the Congressional Library, and other public libraries.

PRIZES.

The Ordronaux Prize Scholarship.—A prize scholarship, known as "The Ordronaux Prize Scholarship," is awarded to that member of the Second Year Class taking the regular course, who shall during his first and second years attain the highest average grade. In determining the average grade of contestants the grade received in each subject shall be multiplied by the number of hours given to such subject and the sum of the results divided by the total number of hours. The recipient of this prize scholarship shall be entitled to receive credit for tuition fees to the extent of ten hours' work in his third year. Library and diploma fees will remain payable. The award of this scholarship is purely personal and will not be commuted to a cash payment, nor will it be transferable. The recipient of the scholarship must make use of the scholarship during the session next succeeding its award; otherwise, the same shall be awarded, upon like conditions, to the person having the next highest grade.

This scholarship, for the session 1911-12, was awarded to Horace Greeley Macfarland.

Ellsworth Prize.—A prize of \$25 in gold, offered by Mr. Fritz von Briesen, called the "Ellsworth Prize," is awarded for the best work done by a regular student in the Patent Law Course.

Awarded in 1911 to Ira James Adams.

Phi Delta Phi Prize.—The Marshall Chapter of Phi Delta Phi Fraternity, which is the local chapter, has offered a prize of \$25 cash, to be awarded to that member of the first year class taking the regular course, who shall attain the highest average grade, the grade to be determined in the same manner as the Ordronaux Prize.

PUBLIC SPEAKING AND DEBATING.

Excellent facilities for training in the art of public speaking are afforded by the two debating societies which have been organized in the Department of Law. These societies, known as the Columbian and Needham Debating Societies, meet weekly for debate. Membership in

these societies is entirely optional, but their work is encouraged in every legitimate way by the Faculty, and students are urgently advised to take part in their exercises.

Intercollegiate debates are also held. Membership on the teams which represent the University in these contests must be won in preliminary contests held for such purpose. These debates are conducted under the supervision of a committee of the University Faculty.

ADMISSION TO THE BAR.

By the rules of the Supreme Court of the District of Columbia, applicants for admission to the Bar are required to have studied law for three years under the direction of a competent attorney, but by those rules the course in the Department of Law of the University is regarded as discharging this requirement. Its work is also accepted as fulfilling the requirements for preliminary law study in almost all of the other jurisdictions of the United States.

FEES.

1. Matriculation fee (payable once)	\$5
2. Annual library fee	3
3. Tuition fee per annum for each hour taken per week.....	10
4. Late registration fee in the case of students registering for the first term after October 20, or for the second term after February 20, excepting for courses which do not begin with the terms	2
5. Fee for graduation	10
6. Fee for a certificate under the seal of the University.....	2

No registration will be accepted for less than a full semester, and no change in the courses undertaken at the time of registration will be made unless approved by the Dean. *Withdrawals during the semester will be granted only on recommendation of the Dean and the approval of the President.*

The library fee will not be charged for the first half-year during which a course is completed in the case of students who enter at the beginning of the second half-year and pay the library fee for that year.

PAYMENT OF FEES.

Matriculation, library, other special fees and laboratory deposits are due in full in advance. Tuition and laboratory material fees may be paid in eight monthly installments in advance. Students unable to pay their

fees monthly in advance will be required to file an acceptable personal or corporate bond for \$200 as security for future payment. In every instance all indebtedness must be discharged on or before May 1 of the current school year. Fees are payable at the office of the Treasurer of the University, 2024 G Street, or of the Secretary of the Department of Law.

BOARD AND ROOMS.

A register of boarding houses is kept by the Treasurer. Accommodations cost from \$25 to \$40 a month.

For catalogues, application blanks, and further information, address

THE SECRETARY OF THE DEPARTMENT OF LAW,
The George Washington University,
New Masonic Temple, Washington, D. C.

DEPARTMENT OF MEDICINE

FACULTY.

CHARLES HERBERT STOCKTON, LL.D.....	PRESIDENT OF THE UNIVERSITY
WILLIAM CLINE BORDEN, M.D.....	Dean and Professor of Surgery
J. FORD THOMPSON, M.D.....	Professor of Surgery, Emeritus
HENRY CRECY YARROW, M.D.....	Professor of Dermatology, Emeritus
ALBERT FREEMAN AFRICANUS KING, A.M., M.D., LL.D.,	Professor of Obstetrics and Dean, Emeritus
GEORGE NICHOLAS ACKER, A.M., M.D.....	Professor of Pediatrics and Clinical Professor of Medicine
DANIEL KERFOOT SHUTE, A.M., M.D.,	Professor of Neuro-Anatomy and Clinical Professor of Ophthalmology
STERLING RUFFIN, M.D.....	Professor of Medicine
WILLIAM KENNEDY BUTLER, A.M., M.D.....	Professor of Ophthalmology
CHARLES EDWARD MUNROE, S.B., Ph.D., LL.D.	Professor of Chemistry
CHARLES WILLIAMSON RICHARDSON, M.D.	Professor of Laryngology, Rhinology, and Otology
JOHN WESLEY BOVEE, M.D.....	Professor of Gynecology
AURELIUS RIVES SHANDS, M.D.....	Professor of Orthopedic Surgery
FRANCIS RANDALL HAGNER, M.D.....	Professor of Genito-Urinary Surgery and Venereal Diseases
WILLIAM CREIGHTON WOODWARD, LL.M., M.D....	Professor of Medical Jurisprudence
WILLIAM ALANSON WHITE, M.D.....	Professor of Psychiatry and Clinical Professor of Neurology
SHEPHERD IVORY FRANZ, A.B., Ph.D.....	Professor of Physiology
DANIEL WEBSTER PRENTISS, M.D.....	Professor of Hygiene
FREDERICK FULLER RUSSELL, M.D.....	Professor of Pathology and Bacteriology
BUCKNER MAGILL RANDOLPH, M.D.....	Professor of Materia Medica and Therapeutics
MONTGOMERY EARL HIGGINS, M.D.....	Professor of Tropical Diseases
RANDOLPH BRYAN CARMICHAEL, M.D.....	Professor of Dermatology
LOUIS ANATOLE LA GARDE, M.D.....	Professor of Military Surgery
MATTHEW KOLLIG, A.B., M.D.....	Professor of Anatomy
JAMES DUDLEY MORGAN, A.B., M.D....	Associate Professor of Medicine and Clinical Professor of Medicine
NOBLE PRICE BARNES, M.D....	Associate Professor of Materia Medica and Therapeutics and Clinical Associate in Medicine
CHARLES FRANKLIN CRAIG, M.D.....	Associate Professor of Pathology and Bacteriology

- HURON WILLIS LAWSON, M.S., M.D.....Associate Professor of
Obstetrics
- FRANK ADELBERT HORNADAY, B.S., M.D.....Associate Professor of
Chemistry
- THOMAS ASH CLAYTOR, M.D.....Clinical Professor of Medicine
- ALBERT LIVINGSTON STAVELY, M.D.....Clinical Professor of Gynecology
- ARTHUR AUGUSTIN SNYDER, M.D.....Clinical Professor of Surgery
- JOHN RYDER WELLINGTON, M.D.....Clinical Professor of Surgery
- GIDEON BROWN MILLER, B.S., M.D..Clinical Professor of Gynecology
- LUTHER HALSEY REICHELDERFER, M.D....Clinical Professor of Surgery
- JULIAN MAYO CABELL, M.D.....Clinical Professor of Obstetrics
- JOHN BENJAMIN NICHOLS, M.D.....Associate in Medicine and in
Dietetics
- EDWARD GRANT SEIBERT, M.D....Associate in Chemistry and Instructor
in Laryngology and Ophthalmology
- CHARLES STANLEY WHITE, M.D.....Associate in Surgery
- HARRY HAMPTON DONNALLY, A.M., M.D....Associate in Medicine and
Clinical Associate in Pediatrics
- WILLIAM FRANCIS MATTINGLY SOWERS, A.B., M.D..Associate in Surgery
- HENRY RANDALL ELLIOTT, M.D.....Associate in Physiology and
Pharmacology
- J. LEWIS RIGGLES, M.D.....Associate in Anatomy and Gynecology
- HENRY JAMES NICHOLS, M.D..Associate in Bacteriology and Pathology
- WILBUR R. BRANDENBURG, M.D.....Associate in Bacteriology and
Pathology
- JOHN BRADFORD BRIGGS, B.S., M.D.....Associate in Pathology and
Bacteriology
- WALTER WATKINS WILKINSON, M.D.....Associate in Medicine
- CHARLES AUGUSTUS SIMPSON, M.D.....Associate in Dermatology
- EDGAR PASQUAL COPELAND, M.D.....Clinical Associate in Pediatrics
- JOHN T. KELLY, M.D.....Clinical Associate in Obstetrics
- WALTER ASHBY FRANKLAND, M.D....Clinical Associate in Gynecology
- FRANK LEECH, M.D.....Clinical Associate in Pediatrics
- WALTER HIBBARD MERRILL, M.D....Instructor in Electro-Therapeutics
- OSCAR ADDISON MACK MCKIMMIE, M.D....Instructor in Laryngology
and Otology
- HOBART SOUTHWORTH DYE, M.D..Instructor in Laryngology and Otology
- TRUMAN ABBE, M.D.....Instructor in Genito-Urinary Surgery
- CHARLES WILBUR HYDE, M.D.....Instructor in Medicine
- ARTHUR LEROY HUNT, M.D.....Instructor in Minor Surgery
- EDMUND THOMAS MURDAUGH FRANKLIN, M.D....Instructor in Surgery
- WILLIAM J. FRENCH, M.D.....Instructor in Pediatrics
- ADAM KEMBLE, M.D.....Instructor in Gynecology
- VIRGIL B. JACKSON, M.D.....Instructor in Gynecology
- SOTHORON KEY, M.D.....Instructor in Medicine

HOMER GIFFORD FULLER, M.D.....	Instructor in Genito-Urinary Surgery and Venereal Diseases
CLINE CHIPMAN, M.D.....	Instructor in Minor Surgery
GEORGE HENRY SCHWINN, M.D..	Instructor in Psychiatry and Neurology
BENJAMIN RUSH LOGIE, M.D.....	Instructor in Neurology
JOHN POTTS FILLERBROWN, M.D..	Instructor in Physiology and Surgery
COURSEN BAXTER CONKLIN, M.D.....	Instructor in Medicine
MILTON HAHN, M.D.....	Instructor in Pediatrics
WILLIAM JOHNSTON MALLORY, M.D.....	Instructor in Medicine
ALBERT PERKINS TIBBETS, A.B., M.D.....	Instructor in Anatomy
HARRY HYLAND KERR, M.D.....	Instructor in Surgery
ALEXANDER YELVERTON PEYTON GARNETT, M.D..	Instructor in Obstetrics
ELIJAH WHITE TITUS, M.D.....	Instructor in Histology, Embryology, and in Obstetrics
FRANCIS MERRIAM BARNES, JR., M.D.....	Instructor in Psychiatry and Neurology
RALPH MICHAEL LE COMTE, M.D.....	Instructor in Pathology and Bacteriology
CARL LAWRENCE DAVIS, M.D.....	Instructor in Anatomy

THE STAFF OF THE GEORGE WASHINGTON UNIVERSITY
HOSPITAL AND DISPENSARY.

HOSPITAL.

STERLING RUFFIN, M.D.	Physician-in-Chief
GEORGE N. ACKER, M.D.,	} Associate Physicians
H. H. DONNALLY, M.D.,	
B. M. RANDOLPH, M.D.,	
W. C. BORDEN, M.D.	Surgeon-in-Chief
JOHN R. WELLINGTON, M.D.,	} Associate Surgeons
C. S. WHITE, M.D.,	
W. F. M. SOWERS, M.D.,	
A. R. SHANDS, M.D.,	Orthopedic Surgeon
FRANCIS R. HAGNER, M.D.	Genito-Urinary Surgeon
HENRY R. ELLIOTT, M.D.,	} Associate Genito-Urinary Surgeons
HOMER G. FULLER, M.D.,	
J. WESLEY BOVEE, M.D.	Gynecologist-in-Chief
G. BROWN MILLER, M.D.	Associate Gynecologist
A. F. A. KING, M.D.	Obstetrician-in-Chief
H. W. LAWSON, M.D.	Associate Obstetrician-in-Chief
E. W. TITUS, M.D.	Assistant Obstetrician
GEORGE N. ACKER, M.D.	Pediatrician-in-Chief
E. P. COPELAND, M.D.	Associate Pediatrician
HENRY C. YARROW, M.D.	Dermatologist-in-Chief
RANDOLPH B. CARMICHAEL, M.D.	Associate Dermatologist
CHAS. W. RICHARDSON, M.D.	Laryngologist
D. KERFOOT SHUTE, M.D.	Ophthalmologist
W. K. BUTLER, M.D.	Ophthalmologist
E. G. SEIBERT, M.D.	Associate Laryngologist and Ophthalmologist
WALTER H. MERRILL, M.D.	Radiographer
F. F. RUSSELL, M.D.	Pathologist-in-Chief
FRANK A. HORNADAY, M.D.	Director of the Clinical Laboratory
J. B. BRIGGS, M.D.	Associate Pathologist
R. M. LE COMTE, M.D.	Assistant Pathologist
CHARLES W. HYDE, M.D.,	} Anaesthetists
ARTHUR L. HUNT, M.D.,	
CLINE CHIPMAN, M.D.,	
WILLIAM L. VAN SANT, M.D.	Resident Physician
WM. P. MCINTOSH, M.D.	Assistant Resident Physician
GEORGE A. CALHOUN, M.D.	Assistant Resident Physician
JOHN ADOLPH ROLLINS, M.D.	Student Intern
J. C. ECKHARDT, M.D.	Student Intern
J. IRVING SLOAT, M.D.	Pharmacist and Extern
LOUIS ANATOLE LA GARDE, M.D.	Extern
MISS B. B. THOMPSON	Superintendent of Nurses and Principal of the Training School for Nurses.
JOHN B. COPPING	Superintendent of the Hospital

DISPENSARY.

A. F. A. KING, M.D.	<i>Obstetrician-in-Chief</i>
STERLING RUFFIN, M.D.	<i>Physician-in-Chief</i>
J. WESLEY BOVEE, M.D.	<i>Gynecologist-in-Chief</i>
WM. C. BORDEN, M.D.	<i>Surgeon-in-Chief</i>
BENJ. R. LOGIE, M.D.	<i>Director of the Dispensary</i>

General Medicine.

B. M. RANDOLPH, M.D.,	}	<i>Attending Physicians</i>
W. A. FRANKLAND, M.D.,		
W. C. MOORE, M.D.,		
C. B. CONKLIN, M.D.,		
W. J. MALLORY, M.D.,		

General Surgery.

A. L. HUNT, M.D.,	}	<i>Attending Surgeons</i>
E. T. M. FRANKLIN, M.D.,		
J. P. FILLEBROWN, M.D.,		

Genito-Urinary Diseases.

FRANCIS R. HAGNER, M.D.	}	<i>Genito-Urinary Surgeon</i>
HENRY R. ELLIOTT, M.D.,		<i>Associates</i>
TRUMAN ABBE, M.D.,		
HOMER G. FULLER, M.D.,		

Gynecology.

J. L. RIGGLES, M.D.,	}	<i>Attending Gynecologists</i>
V. B. JACKSON, M.D.,		
ADAM KEMBLE, M.D.,		

Obstetrics.

H. W. LAWSON, M.D.	<i>Associate Obstetrician-in-Chief</i>
E. W. TITUS, M.D.	<i>Assistant Obstetrician</i>

Eye, Ear, Throat, and Nose.

E. G. SEIBERT, M.D.	<i>Laryngologist and Ophthalmologist</i>
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Neurology.

B. R. LOGIE, M. D.	<i>Neurologist</i>
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Electro-Therapeutics.

W. H. MERRILL, M.D.	<i>Electro-Therapist</i>
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Dermatology.

C. A. SIMPSON, M.D.	<i>Attending Dermatologist</i>
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Pediatrics.

MILTON HAHN, M.D.	<i>Attending Pediatrician</i>
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Pathology.

F. F. RUSSELL, M. D.	<i>Pathologist</i>
J. B. BRIGGS, M.D.	<i>Associate Pathologist</i>
R. M. LE COMTE, M.D.	<i>Assistant Pathologist</i>

Laboratory.

F. A. HORNADAY	<i>Director</i>
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HISTORICAL.

The *Department of Medicine of the George Washington University*, in the chronological order of establishment, is the seventeenth Medical School in the United States. The first course of lectures began in March, 1825. For many years the school was known as the National Medical College; subsequently as the Department of Medicine of the Columbian University. By virtue of an act of Congress approved January 23, 1904, the Columbian University changed its name to "The George Washington University."

When first established, and for many years thereafter, this school, like most others in this country, gave only a two years' course of five months each. In 1878 the course was lengthened by the establishment of a Spring Session devoted to lectures in certain special subjects. In 1879 the course was lengthened to seven months and attendance upon three annual sessions required, and in 1893 attendance on four annual courses was made obligatory upon all candidates for the degree of Doctor of Medicine. In order to increase the facilities for actual bedside teaching, the University Hospital and the University Dispensary were established in 1898 and made a part of the Department of Medicine. In 1902 the old Medical College building, in which the exercises had been held since 1867, gave place to the present large and commodious structure.

EDUCATIONAL POSITION.

The Medical Department of the University has been for several years a member of the Association of American Medical Colleges. It is one of Medical Colleges designated as "acceptable, class A," by the American Medical Association, and it is accredited for all its work by the Combined (Royal) Medical Examining Boards in England.

These facts guarantee the character of the work done by the College and insures its students and graduates all the advantages which accrue from such association and recognition.

BUILDINGS AND OTHER FACILITIES.

Buildings of the Medical Department. All the buildings adjoin each other and consist of the Medical College Building and the University Hospital and the University Dispensary. They are most advantageously situated in the heart of the city near both systems of car lines. As the Hospital and Dispensary adjoin the College, their clinical facilities are easily accessible to the students, and the pathological material and the material for clinical microscopy and clinical chemistry afforded by the Hospital and Dispensary are directly used in the College laboratories.

The *Medical College Building* is a modern commodious, five-story structure, with spacious, well-lighted, well-ventilated lecture and class rooms, laboratories, and students' rooms. It has an elevator service, and is equipped throughout with steam heat, gas, electricity, and all modern improvements.

The *Laboratories*, six in number (for anatomy, chemistry, physiological and clinical chemistry, histology and embryology, physiology and pharmacology, and bacteriology and pathology), are fully equipped with the most approved appliances, so that students may adequately pursue the laboratory courses and acquire the technical skill necessary in modern clinical and research methods.

The *University Medical Library* is open for study and consultation from 9 a. m. to 9 p. m. It contains at present more than 3,000 volumes, and provision is made to add to it as published the important new works on medicine. The most important medical periodicals are regularly received. The Library is an excellent working collection, as it affords opportunity to adequately read up on the subjects presented in the courses.

The *Pathological Museum* contains a great many valuable and interesting specimens. Their number is increased by additions from time to time. These specimens are particularly valuable to the students as illustrating the changes produced by disease.

ADVANTAGES OF LOCATION.

Advantages of Washington as a place for pursuing the study of medicine. This city now has over four hundred thousand inhabitants, providing abundant clinical material to the hospitals, which have an aggregate of over three thousand beds. In these hospitals clinical instruction, in addition to that in the University Hospital, is given by members of the Faculty.

The *great libraries and museums* connected with the various Government institutions afford unparalleled facilities for study.

The Library of the Surgeon General's Office of the United States Army is the most complete medical library in the world. All the facilities of this great library are open to medical students. There is also the Library of Congress, the Public Library, and the many excellent libraries of the various Government offices, all of which are open to students.

The *Army Medical Museum* affords an unrivaled opportunity for studying the conditions met with in military and general surgery. It contains on exhibition a collection of anatomical and pathological specimens unequalled by any other museum. Other Government museums are the Museum of Hygiene, in connection with the Medical Department of the Navy and the National Museum which contains the most complete and best arranged collection of *materia medica* in the world.

The drugs are shown in all their processes of manufacture. The Botanic Gardens, the Smithsonian Institution, the Fish Commission, the Department of Agriculture, all afford opportunities for study both in medicine and its collateral sciences.

On account of the many advantages offered in this city, the *Army and Navy Medical Schools* have been here located. The Alumni of this College are largely represented in all public services, and have been highly successful in passing the rigid examinations by them. Ten per cent of the total number of the regular medical corps of the United States Army are graduates of this College.

Aside from the special advantages offered for the study of medicine, the cosmopolitan character of the city of Washington, its climate (not excessively cold in winter), its beauty, and its interests, which, as it is the seat of the General Government, are broad and national, make it an ideal place for a medical student to pass his four years of study.

ADMISSION.

The requirements for admission are those of the Association of American Medical Colleges, and are as follows:

Candidates for matriculation must present creditable certificates of good moral character from two physicians in good standing.

The education requirements for admission are:

- (a) A diploma from an accredited high school, normal school, or academy requiring for admission evidence of the completion of an eight-year course in primary and intermediate grades; and for graduation not less than four years of study.
- (b) A Bachelor's degree from an approved college or university.
- (c) Candidates not having a Bachelor's degree or a diploma from an accredited high school or academy may be admitted upon passing an examination in the following branches:

1. Required (18 points); Mathematics (4 points); English (4 points); History (2 points); Language (4 points—Latin, French, German); Science (taken from physics, chemistry, botany, zoology), 4 points.

2. Optional (to 12 points taken from); English (4 points); History (6 points); Language (6 points); Manual Training (2 points); Mechanical Drawing (1 point); Natural Science (botany, biology, and zoology, 2 points each); Astronomy, Civics, Geology, Physical Geography, Physiology and Hygiene, Political Economy (2 points each).

(One point in any subject in a high school or academic course demands not less than five periods per week of forty-five minutes each for eighteen weeks.)

The examination is conducted by the University and will be held in the latter part of May and September. Candidates desiring ex-

amination must submit their certificates of character to the Dean before the first of the month in which they desire to be examined.

Certificates from reputable instructors recognized by the State Board of Medical Examiners duly authorized by law or by the Superintendent of public instruction in States having no examining board may be accepted in lieu of any part of the examination.

As the laws relating to the preliminary educational qualifications required of physicians differ in many of the States of the Union, candidates are advised to make themselves familiar with the provisions of the medical statutes of the States in which they contemplate applying for license to practice. Attention to this precaution may save future embarrassment.

ADMISSION OF STUDENTS FROM OTHER SCHOOLS.

Students who have attended one or more terms at any other medical college in good standing, and who have the necessary preliminary educational requirements, may be admitted to advanced standing upon passing the examination required of students for the stage at which they propose to enter, or upon presenting certificates of examination covering courses equal to those in this College.

Students, approved by the Dean, not candidates for the degree of Doctor of Medicine, may be admitted as special students without examination to pursue any course they may elect.

ACADEMIC YEAR.

The *Academic Year* begins on the last Wednesday in September and ends on the first Wednesday in June. It is divided into two semesters of four months each.

The term of study for the degree of Doctor of Medicine consists of four years of eight months each. The next session, the ninety-second, begins September 25, 1912, and ends June 8, 1913.

Students must register promptly at the beginning of the session, in order that their time of study shall count as a full year.

Degrees are conferred at Commencement, the second Wednesday in June.

Optional Five-Year Course.

Since the session of 1904-05 a five-year optional course has been offered for the benefit of students. Students in this course take their subjects with the regular four-year classes, but as they take fewer subjects each year, they are able to devote more time to each study.

SYSTEM OF INSTRUCTION.

Instruction is carried on by laboratory work, recitations, lectures, bedside instruction, and hospital and dispensary clinics. Particular stress is laid upon laboratory work and clinical teaching. The clinical material of the University Hospital and Dispensary is utilized to the fullest extent, as the Hospital, the Dispensary, and the Medical College are under the same control. Additional clinics are given in other hospitals in the city to which members of the faculty are attached.

While the greatest stress is laid upon laboratory work and clinical teaching, it is recognized that the facts so obtained must be correlated and shown in their due relation to each other and to the science of medicine. To this end didactic lectures are maintained in certain branches, as they have been found necessary to give a systematic and comprehensive idea of the larger subjects in medicine. These lectures are followed by systematic and thorough quizzes, so that it may be certain that the students properly and thoroughly grasp the ideas presented by the lectures.

The recitation and quiz work is made so complete that students do not need to employ private quizmasters.

The object sought throughout the courses is to thoroughly ground the students in the knowledge which is necessary to the practitioner of medicine. No particular attempt is made to graduate specialists in any subject. It is believed that the four years allowed are no more than sufficient time for the adequate preparation of the general practitioner.

The policy adopted by the College is to give a comprehensive, well-graded, and well-proportioned course—one that will adequately prepare the graduate to practice general medicine and meet the requirements of State Boards.

ORDER OF INSTRUCTION.

The subjects studied in each year are shown in the following table. Major subjects are in italics:

FIRST YEAR.	SECOND YEAR.	THIRD YEAR.	FOURTH YEAR.
<i>Anatomy.</i>	<i>Organic and</i>	<i>Medicine.</i>	<i>Medicine.</i>
<i>Histology.</i>	<i>Physiological</i>	<i>Surgery.</i>	Case Teaching.
<i>Embryology.</i>	<i>Chemistry.</i>	Surgical	<i>Surgery.</i>
<i>Physiology.</i>	<i>Pathology.</i>	Pathology.	Orthopaedics.
<i>General</i>	<i>Bacteriology.</i>	Fractures and	Genito-Urinary
<i>Chemistry.</i>	Clinical	Dislocations.	Diseases.
	Microscopy.	<i>Obstetrics.</i>	Operative
	Topographical	<i>Therapeutics.</i>	Surgery.
	Anatomy.	Electro-	Gunshot Wounds.
	<i>Materia Medica.</i>	Therapeutics.	<i>Obstetrics.</i>
	Pharmacology.	<i>Gynecology.</i>	<i>Gynecology.</i>
	Minor Surgery.	Medical	Laryngology and
	Physical	Jurisprudence.	Otology.
	Diagnosis.	Applied	Ophthalmology.
	Pathological	Anatomy.	Dermatology.
	Physiology.	Clinical	Psychiatry.
		Chemistry.	Pediatrics.
		Hygiene.	Neurology.
		Dietetics.	Tropical Diseases.
		<i>Clinics.</i>	<i>Clinics.</i>

The greater part of the fourth year is devoted to clinical work in the hospitals. During this year, however, general instruction is also given in Mental Diseases, Neurology, Dermatology, Ophthalmology, Laryngology, and Otology. Not less than 1,000 hours of clinical work are required.

ANATOMY.

MATTHEW KOLLIG, A.M., M.D.....	Professor of Anatomy
D. KERFOOT SHUTE, M.D.....	Professor of Neuro-Anatomy
J. L. RIGGLES, M.D.....	Associate in Anatomy
ALBERT P. TIBBETS, A.B., M.D.....	Instructor in Anatomy
E. W. TITUS, M.D.....	Instructor in Histology and Embryology
C. L. DAVIS, M.D.....	Instructor in Anatomy

The instruction in the various anatomical sciences—gross human anatomy, neurology, embryology and histology—is carried on by the Division of Anatomy of which the Professor of Anatomy is the head.

This insures complete correlation of the various anatomical branches and adequate instruction in each.

During the first year the course in Gross Anatomy is given mainly by practical laboratory work. Each student is required to dissect satisfactorily the lateral half of a cadaver. The dissecting-room work is supplemented by demonstration, recitation, and lectures, illustrated by lantern slides, models, and diagrams.

Throughout the course every opportunity is taken to emphasize the application of anatomy to the practice of medicine in all its departments.

Osteology and Syndesmology are taught by recitations and demonstrations at the beginning of the course, preparatory to the more advanced studies in anatomy.

In the second year a course in topographical anatomy is given, in which recitations and laboratory demonstrations are used to thoroughly familiarize the student with the subject. In the third year a course is given in the general application of Anatomy to Medicine and Surgery. In this way a thorough preparation in general and applied anatomy is given.

<i>First Year.</i>			
	Lect., Rec., Dem.	Hours. Lab.	Total
Gross Anatomy	120	360	480
<i>Second Year.</i>			
Topographical Anatomy	20	60	80
<i>Third Year.</i>			
Applied Anatomy	16	...	16
Totals	156	420	576

In histology and embryology instruction is given in the care and use of the microscope and in the preparation of tissues for microscopical examination, and a systematic study is made of the minute structure of the tissues and organs of the body, the laboratory work being supplemented by recitations.

<i>First Year.</i>			
	Lect., Rec., Dem.	Hours. Lab.	Total
Histology	32	96	128
Embryology	16	48	64
Totals	48	144	192

PHYSIOLOGY.

SHEPHERD IVORY FRANZ, Ph.D.....	Professor of Physiology
HENRY R. ELLIOTT, M.D.....	Associate in Physiology
JOHN P. FILLEBROWN, M.D.....	Instructor in Physiology

The course in Physiology consists of lectures, recitations, conferences, demonstrations, and laboratory exercises, during the second half of the first year. The lectures cover all the important facts and theories regarding bodily functions, and are illustrated by diagrams, models, and prepared specimens. Recitations are held on assigned parts of the textbook. Conferences are held on special physiological topics, and for these exercises each student is required to prepare one thesis during the semester. In the laboratory each student performs a number of experiments on blood, on the circulation, on digestion, on the general functions of muscle and nerve, on the nervous system, and on the special senses. The student is required to make and keep records of the experiments, and these are criticised by the instructors. The class is divided into sections, so that each student receives a large amount of personal attention. In the second year a series of exercises is held in which special emphasis is laid on the relation of normal physiological function to the disturbances of function in disease, and upon the physiological action of drugs. It is intended in this way to bring the work of the Physiological Laboratory and other exercises into closer relation with succeeding courses in Pathology, Therapeutics, and General Medicine.

First Year.

	Lect., Rec., Dem.	Hours. Lab.	Total.
Physiology	48	192	240

Second Year.

Pathological Physiology .....	...	16	16
Totals	48	208	256

CHEMISTRY.

CHARLES E. MUNROE, Ph.D....Professor of Chemistry and Toxicology
 FRANK A. HORNADAY, B.S., M.D.....Associate Professor of Chemistry
 EDWARD G. SEIBERT, M.D.....Associate in Chemistry

General Chemistry. A series of illustrated lectures accompanied by recitations, laboratory work, and exercises on theoretical, inorganic, organic, and technical chemistry.

Organic Chemistry. A series of lectures, laboratory work, and recitations on the acyclic and cyclic hydrocarbons and their derivatives, with special reference to physiology and medicine.

Physiological Chemistry. A series of lectures, laboratory work and recitations on the proximate principles of the human body.

Clinical Chemistry. A thorough course is given in which material from the University Hospital and Dispensary is utilized to show the practical application of this subject in medicine.

First Year.

	Hours.			Total.
	Lect.,	Rec., Dem.	Lab.	
General Chemistry	96		96	192

Second Year.

Organic Chemistry	64		56	120
Physiological Chemistry	24		56	80

Third Year.

Clinical Chemistry .....	...		24	24
Totals	184		208	416

MATERIA MEDICA AND THERAPEUTICS.

B. M. RANDOLPH, M.D. Professor of Materia Medica and Therapeutics

NOBLE P. BARNES, M.D. Associate Professor of Materia Medica and Therapeutics

HENRY R. ELLIOTT, M.D. Associate in Pharmacology

WALTER H. MERRILL, M.D. Instructor in Electro-Therapeutics

Second year. (1) Lectures upon Materia Medica, including a demonstration of drugs and their preparations. (2) Recitations upon the preparations, their doses, and the various antidotes for poisons. (3) Practical exercises in prescription writing. (4) Demonstrations of drugs.

Third year. (1) Systematic lectures upon the physiological action of drugs and their effects in health and disease, their therapeutic uses, and their methods of administration. (2) Lectures and section demonstrations in electro-therapeutics. (3) Prescription writing, in which the students are given hypothetical cases for which to prescribe, the prescriptions being reported before the class for criticism and discussion.

Second Year.

	Hours.			Total.
	Lect.,	Rec., Dem.	Lab.	
Pharmacology .....	...		64	64
Materia Medica and Toxicology	160		...	160

Third Year.

Therapeutics	64		...	64
Electro-Therapeutics	16		16	32
Totals	240		80	320

DIETETICS.

J. B. NICHOLS, M. D.....Associate in Medicine

A course of lectures and quizzes on the principles of feeding in health and disease.

Third Year.

	Hours.			Total.
	Lect.,	Rec., Dem.	Lab.	
Dietetics	32	32

PATHOLOGY AND BACTERIOLOGY.

FREDERICK F. RUSSELL, M.D...Professor of Pathology and Bacteriology
 C. F. CRAIG, M.D...Associate Professor of Pathology and Bacteriology
 H. J. NICHOLS, M.D.....Associate in Pathology and Bacteriology
 W. R. BRANDENBURG, M.D....Associate in Pathology and Bacteriology
 J. B. BRIGGS, M.D.....Associate in Pathology and Bacteriology
 R. M. LE COMTE, M.D.....Instructor in Pathology and Bacteriology

Bacteriology.—The first part of the session is devoted to a laboratory course of instruction in the fundamental principles and methods of pure bacteriology. A thorough drilling is given in the preparation of culture media, in sterilization and disinfection, staining, and in the several methods of differentiating bacteria.

Pathology.—The course in Pathology comprises general and special pathology and clinical microscopy. Post-mortem examinations will be utilized when possible. Coincidentally with the above is included the study of the principal pathogenic bacteria: the principles of immunity and serum therapy.

The course in instruction in special pathology will include the study of those processes requiring surgical relief; the healing of wounds and other injuries; of special diseases, neoplasms, and problems of experimental pathology.

The course in Clinical Microscopy comprises the study and examination of various tissues, fluids, and material from the standpoint of diagnosis.

Second Year.

	Hours.			Total.
	Lect.,	Rec., Dem.	Lab.	
Bacteriology	45	...	135	180
Pathology	40	...	200	240
Clinical Microscopy .....	...	...	72	72
Totals	85	...	407	492

....., M.D. Professor of Morbid Anatomy

Fourth Year.

MEDICINE.

Instruction in Medicine is so given as to conform to the most modern requirements. The work begins in the second year with a complete course in history-taking and normal physical diagnosis, and is continued through the third and fourth years. During the latter two years the course consists of lectures, recitations, a study of case histories, clinical conferences, and practical work in the clinical laboratory and at the bedside. The work is made as practical as possible.

The third-year class is divided into small sections, which are required to attend the daily dispensary service in the University Hospital, where they are drilled especially in history-taking and in the technique of practical physical diagnosis.

The fourth-year class is similarly divided into small sections, and these are required to attend the daily ward clinics in the University Hospital and ward clinics in the Garfield Memorial Hospital, Children's Hospital, and the Tuberculosis Hospital of the District of Columbia.

The system of ward clinics to small groups of students affords a most effective method of studying disease and gives to every student an opportunity of following a large assortment of diseases from their commencement to the termination of illness; in no other way is it possible to get a more practical knowledge of the methods of studying disease or a more intimate knowledge of disease itself.

Every patient in the medical wards of the University Hospital is assigned to one, or at most two, senior students, who are required (under proper supervision) to take the history, to make and record a complete physical examination, to determine after due study the nature of the illness (diagnosis), to outline a plan of treatment, and to make daily notes of the progress of the case.

A weekly amphitheater clinic is given to third-year students in a body and a similar clinic to the fourth-year class. A series of special neurological clinics is provided for the senior class at the Government Hospital for the Insane, where there is a great wealth of material.

Second Year.

	Lect., Rec., Dem.	Hours. Clinics.	Total.
Physical Diagnosis	64	...	64

Third Year.

General Medicine	128	128	256
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Fourth Year.

General Medicine	128	192	320
Totals	320	320	640

TROPICAL MEDICINE.

M. E. HIGGINS, M.D., Surg. U.S.N., Professor of Tropical Diseases,
Instructor in Bacteriology and Tropical Diseases,
U. S. Navy Medical School.

The course in tropical diseases is similar to that given in the Army and Navy Medical Schools, and consists of didactic lectures, quizzes, and laboratory instruction, with particular reference to the parasitic, protozoal diseases common in the tropics and in the southern part of the United States.

Fourth Year.

	Hours.
Tropical Medicine, 1 hour, Feb.-May.....	16

PSYCHIATRY AND CLINICAL NEUROLOGY.

WILLIAM A. WHITE, M.D., Superintendent of the Government Hospital for the Insane.....Professor of Psychiatry and Clinical Neurology

B. J. LOGIE, M.D.....Instructor in Neurology

H. W. MILLER, M.D.....Instructor in Psychiatry and Neurology

F. M. BARNES, M.D.....Instructor in Psychiatry and Neurology

A series of lectures and clinics is given upon the subject of insanity in its various forms.

These clinics are given at the Government Hospital for the Insane, which, with its more than two thousand beds, affords one of the largest clinics in this country.

Fourth Year.

	Hours.
Psychiatry and Neurology, 1 hour, Jan.-May. DR. WHITE.....	20
Clinical Psychiatry, 1 hour, Jan.-May. DRS. MILLER and BARNES..	20

PEDIATRICS.

GEORGE N. ACKER, A.M., M.D.....Professor of Pediatrics

EDGAR P. COPELAND, M.D.....Associate in Pediatrics

H. H. DONNALLY, M.D.....Clinical Associate in Pediatrics

FRANK LEECH, M.D.....Clinical Associate in Pediatrics

W. J. FRENCH, M.D.....Instructor in Pediatrics

Didactic and clinical lectures, bedside and dispensary clinics are given upon diseases of infants and children and the importance of the proper management of these diseases by diet and hygiene.

The children's clinic, at the Children's Hospital, affords ample material for practical teaching in this branch.

Fourth Year.

	Hours.		Total.
	Lect., Rec., Dem.	Clinics.	
Pediatrics	32	62	94

PHYSICAL DIAGNOSIS.

W. W. WILKINSON, M.D.....Associate in Medicine

A complete course is given in this subject by means of recitations, section work on normal subjects, and with clinical cases which typically represent diseased conditions.

Second Year.

	Hours.		Total.
	Lect., Rec., Dem.	Clinics.	
Physical Diagnosis	32	32	64

SURGERY.

WILLIAM CLINE BORDEN, M.D.....	Professor of Surgery
A. R. SHANDS, M.D.....	Professor of Orthopedic Surgery
ARTHUR A. SNYDER, M.D.....	Clinical Professor of Surgery
FRANCIS R. HAGNER, M.D.....	Professor of Genito-Urinary Surgery
L. A. LA GARDE, M.D.....	Professor of Military Surgery
CHARLES S. WHITE, M.D.....	Associate in Surgery
JOHN R. WELLINGTON, M.D.....	Clinical Professor of Surgery
W. F. M. SOWERS, A.B., M.D.....	Associate in Surgery
L. H. REICHELDERFER, M.D.....	Clinical Professor of Surgery
CHARLES W. HYDE, M.D.....	Instructor in Minor Surgery
A. L. HUNT, M.D.....	Instructor in Minor Surgery
E. T. M. FRANKLIN, M.D.....	Instructor in Surgery
CLINE CHIPMAN, M.D.....	Instructor in Minor Surgery
H. H. KERR, M.D.....	Instructor in Surgery

The principles of surgery are presented in a systematic course of lectures, so that the student may obtain a comprehensive and adequate concept of the science and art of surgery. These lectures are followed by recitations held twice a week, so that the subject-matter may be thoroughly impressed upon the students. The special divisions of surgery are taught by associates and instructors who have made specialties of these branches. The clinical material in the University Hospital and Dispensary, being under the control of the Faculty, is directly used throughout the course to illustrate the subjects taught and to familiarize the students with actual clinical conditions.

Surgical technique is taught by instruction in the preparation of materials used in antiseptic and aseptic surgery, the preparation of the patient, and the sterilization of instruments. Practical instruction is given in the Hospital and Dispensary in the application of splints, bandages, and dressings used in the various surgical diseases and injuries. Thorough instruction and practical demonstrations are given in the administration of anæsthetics.

Clinical teaching is carried on in the University Hospital and Dispensary, and in other hospitals of the city to which members of the Faculty are attached. Amphitheater clinics are given, in which the general practice of surgical diagnosis and operative technique and therapeutic procedure are shown. Senior students are assigned in rotation to individual cases in the wards of the University Hospital.

Ward clinics and bedside instruction are made a prominent part of the course. The class is divided into sections, which are regularly assigned to clinical work in the University Hospital and Dispensary, and in other hospitals.

Practical work is required of each student in the preparation of dressings, sterilization of instruments, etc.

In the third year a thorough course is given in surgical anatomy and operative surgery on the cadaver, in connection with which the instructor takes up a general review of anatomy, so that the student may be thoroughly prepared for State Board examinations after graduation.

Second Year.

	Lect., Rec., Dem.	Hours. Clinics.	Total.
Minor Surgery	64	...	64

Third Year.

General Surgery	96
Surgical Pathology	24

Fourth Year.

General Surgery	96	} 256	496
Orthopedics	24		
Genito-Urinary	24		
Gunshot Wounds	8		
Totals	324	256	580

SURGICAL PATHOLOGY.

W. F. M. SOWERS, M.D. Associate in Surgery

Surgical pathology is taught by thorough instruction in the gross and microscopic appearance of surgical diseases and injuries, and by a systematic course of lectures and quizzes by which the etiology, pathology, symptomatology, and treatment of the surgical affections and their relations to each other are shown.

ORTHOPEDICS.

A. R. SHANDS, M.D. Professor of Orthopedics

A course of lectures and recitation on the pathology, etiology, course, termination, and treatment of chronic joint diseases, with clinical instruction in the application of special apparatus and of plaster of Paris to the correction of deformities.

GENITO-URINARY DISEASES.

FRANCIS R. HAGNER, M.D. Professor of Genito-Urinary Diseases

A thorough course of instruction in genito-urinary diseases is given by lectures, recitations, section clinics, and bedside teaching.

GUNSHOT WOUNDS.

LOUIS A. LA GARDE, M.D. Professor of Military Surgery

The treatment of gunshot wounds with special reference to civil practice is given in a course of lectures and demonstrations, fully illustrated by lantern slides, X-ray photographs, and actual specimens from the Army Medical School.

OBSTETRICS.

A. F. A. KING, A.M., M.D., LL.D. Professor of Obstetrics

H. W. LAWSON, B.S., M.D. Associate Professor of Obstetrics

JULIAN M. CABELL, M.D. Clinical Professor of Obstetrics

E. W. TITUS, M.D. Instructor in Obstetrics

A. Y. P. GARNETT, M.D. Instructor in Obstetrics

The course in Obstetrics comprises a series of lectures on the science and art of midwifery, together with practical work. The chief purpose of the lecturer is to arrange, simplify, and explain the matters studied in the text-books so as to render them more easily intelligible and to indicate their relative importance. The lectures are illustrated by diagrams, models, manikins, natural preparations, and instruments. The class is divided into sections, and each student performs various obstetrical operations upon the manikin and receives practical instruction in external pelvimetry and the methods of abdominal palpation and auscultation during pregnancy. Recitations from text-books are held throughout the term. In the fourth year clinical instruction in obstetrics is given, the class being divided into small sections and each section being given bedside instruction and the individual students are required to attend a stated number of cases.

Third Year.

	Lect., Rec., Dem.	Hours. Clinics.	Total.
Obstetrics	128	*	128

Fourth Year.

Obstetrics	32	*	32
Totals	160	...	160

* Number of clinic hours cannot be given, but each student is required to attend five cases, exclusive of demonstration work.

GYNECOLOGY.

J. WESLEY BOVEE, M.D.....	Professor of Gynecology
G. BROWN MILLER, M.D.....	Associate in Gynecology
A. L. STAVELY, M.D.....	Clinical Professor of Gynecology
W. A. FRANKLAND, M.D.....	Instructor in Clinical Gynecology
J. LEWIS RIGGLES, M.D.....	Instructor in Gynecology
VERGIL B. JACKSON	Instructor in Gynecology
ADAM KEMBLE, M.D.....	Instructor in Gynecology

Gynecology as taught in the third year comprises a course of lectures and text-book recitations. In the fourth year individual students are assigned to cases in the wards of the University Hospital, and the class is taken in sections of one to two students each into the Gynecological Dispensaries for clinical instruction in examinations, diagnosis, and treatment. In larger sections the class attends amphitheater clinics given by the Professor of Gynecology and Clinical Gynecology.

Third Year.

	Hours.			Total.
	Lect.,	Rec.,	Dem. Clinics.	
Gynecology	32		32	64

Fourth Year.

	Hours.			Total.
	Lect.,	Rec.,	Dem. Clinics.	
Gynecology	32		32	64
Totals	64		64	128

LARYNGOLOGY AND OTOTOLOGY.

CHARLES W. RICHARDSON, M.D..	Professor of Laryngology and Otology
O. A. M. McKIMMIE, M.D.....	Instructor in Laryngology and Otology
H. S. DYE, M.D.....	Instructor in Laryngology and Otology
E. G. SEIBERT, M.D.....	Instructor in Laryngology and Otology

The course comprises lectures and clinical instruction on diseases of the nasal passages, pharynx, larynx, and the ear. Practical demonstrations are given in the use of the laryngoscope and other instruments required in these special branches.

Fourth Year.

	Hours.
Lectures, 3 hours, Oct.-Nov. Professor RICHARDSON.....	24
Clinics. Professor RICHARDSON, Dr. DYE, Dr. McKIMMIE, and Dr. SEIBERT	24

OPHTHALMOLOGY.

W. K. BUTLER, M.D.....	Professor of Ophthalmology
D. KERFOOT SHUTE, A.B., M.D.....	Associate Professor of Ophthalmology
E. G. SEIBERT, M.D.....	Instructor in Ophthalmology

The course of lectures on this subject is to direct attention to the elementary principles of the subject. It is not intended to qualify the student as a specialist, but to give him a knowledge of what every general practitioner ought to know. The course is supplemented by clinical instruction.

Fourth Year.

	Hours.
Lectures, 1 hour, Oct.-Dec. Professor BUTLER.....	12
Clinics. Professors BUTLER and SHUTE and Dr. SEIBERT.....	12

DERMATOLOGY.

R. B. CARMICHAEL, M.D.....	Professor of Dermatology
C. A. SIMPSON, M.D.....	Instructor in Dermatology

The lectures in this course will be principally clinical, supplemented by didactic lectures, illustrated by diagrams, models, and photographic illustrations of disease from life.

Fourth Year.

	Hours.
Lectures, 1 hour, Oct.-Dec. Professor YARROW.....	14
Clinics, Oct.-Dec. Professors YARROW and CARMICHAEL.....	12

HYGIENE.

D. W. PRENTISS, M.D.....	Professor of Hygiene
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The course in Hygiene is given principally by recitation from a prescribed text-book. Consideration is given to domestic and municipal sanitation and to the principles underlying legislative control of public health.

Fourth Year.

	Hours.
Lectures and recitations, 1 hour. Professor PRENTISS.....	32

MEDICAL JURISPRUDENCE.

W. C. WOODWARD, M.D.....Professor of Medical Jurisprudence

This course is designed to familiarize students with the rights and obligations of physicians, both legal and ethical, and to qualify them to apply the facts of medical science to the solution of problems in law.

Third Year.

Lectures, 1 hour, Feb.-May. Professor WOODWARD..... Hours
16

CLINICAL FACILITIES.

The following hospitals are open to the students of this school for clinical study, and are extensively used for that purpose:

University Hospital and the University Dispensary, H St., between Thirteenth and Fourteenth Sts., N. W., and adjacent to the Medical Building.—The Hospital and Dispensary are part of the educational equipment of the University. They are integral parts of the Department of Medicine, are entirely controlled by the Faculty of Medicine, and are used primarily in instructing the students in clinical medicine, surgery, and obstetrics. The Dispensary has a large out-patient service in all departments, to which several thousand visits are made annually.

The staff is composed of members of the Faculty of Medicine.

Garfield Memorial Hospital, Florida Ave. and Tenth St., N. W.—This institution has 118 charity beds. Clinics are given regularly throughout the session by members of the Faculty connected with the visiting staff of the hospital. There is also an out-patient department, giving good opportunities for experience in the practice of physical diagnosis.

Members of the Faculty on the visiting staff: Professors CLAYTOR and MORGAN, Clinical Medicine; Professors SNYDER, WELLINGTON, and REICHELDERFER, Clinical Surgery; Professor STAVELY, Clinical Gynecology; Professor CARMICHAEL, Clinical Dermatology; Professors SHUTE and BUTLER, Clinical Ophthalmology; Professor HAGNER, Clinical Genito-Urinary Surgery; Professor YARROW, Consulting Physician; Dr. CABELL, Clinical Obstetrics.

Children's Hospital, W St., between Twelfth and Thirteenth Sts., N. W.—Regular instruction is given in the medical and surgical wards by members of the Faculty on the visiting staff of the hospital. This institution has 100 charity beds. There is also a large out-patient department.

Members of the Faculty on the visiting staff: Professors KING and YARROW, Consulting Physicians; Professor WELLINGTON, Clinical Surgery; Professor ACKER and Drs. COPELAND, DONALLY, and LEECH, Clinical Medicine.

Emergency Hospital and Central Dispensary, Fifteenth St. and Ohio Ave., N. W.—This hospital has 36 charity beds, and has a very large out-patient service. The large emergency service gives exceptional facilities in clinical surgery.

Members of the Faculty on the visiting staff: Professor HAGNER, Clinical Genito-Urinary Diseases; Drs. WHITE and JACKSON, Surgery; Professor MORGAN and Dr. ELLIOTT, Clinical Medicine; Professor CARMICHAEL, Clinical Dermatology; Dr. MILLER, Clinical Gynecology; Professor SHANDS, Orthopedics; Professor SHUTE, Ophthalmology; Dr. FRENCH, Pediatrics.

Columbia Hospital for Women, Twenty-fifth St. and Pennsylvania Ave., N. W.—This hospital has 68 charity beds for diseases peculiar to women, and 50 charity maternity beds. Both the obstetrical and the gynecological services are particularly good.

Members of the Faculty on the visiting staff: Professor BOVEE and Dr. MILLER, Clinical Gynecology; Drs. KELLY, CABELL, and RIGGLES, Clinical Obstetrics; Professor SHUTE, Ophthalmology; Professor RUFFIN, Visiting Physician.

Providence Hospital, Second and D Sts., S. E.—This institution has a large charity service—100 beds for medical and surgical cases and 30 maternity beds.

Members of the Faculty on the visiting staff: Professor RICHARDSON, Clinical Laryngology and Otology; Professor SHUTE, Clinical Ophthalmology; Dr. SOWERS, Clinical Surgery; Professor CARMICHAEL, Dermatology; Dr. MORSE, Obstetrics.

The Government Hospital for the Insane.—This hospital is maintained by the United States Government. It has 2,500 beds. Clinical instruction in mental diseases is given by the superintendent of the hospital, Professor W. A. WHITE, and Drs. MILLER and BARNES. Other members of the Faculty on service at this hospital are Professor FRANZ; Professor SHUTE, Consulting Ophthalmologist; Professor RUFFIN, Consulting Physician.

Episcopal, Eye, Ear, Throat, and Nose Hospital, Fifteenth St., between L and M Sts., N. W.—Excellent opportunities for clinical instruction in ophthalmology, otology, laryngology, and rhinology are offered by this hospital.

Members of the Faculty on its staff: Professor RICHARDSON, Clinical Otology and Laryngology; Drs. McKIMMIE and DYE, Clinical Otology and Laryngology; Professor ACKER, Consulting Physician.

Lutheran Dispensary, Fourteenth and N Sts., N. W.—This dispensary affords good opportunities for clinical study of diseases of the eye, ear, throat, and nose.

Members of the Faculty on its staff: Professor BUTLER, Surgeon-in-Charge; Dr. SEIBERT, Ophthalmology; Professor ACKER, Consulting Physician.

Casualty Hospital, 708 Massachusetts Ave., N. E.—Opportunities in emergency and dispensary work are offered by this institution.

Members of the Faculty on its staff: Professor ACKER, Consulting Physician; Dr. BARNES, Clinical Medicine.

Woman's Clinic, 1237 T St., N. W.—Members of the Faculty on its staff: Professor YARROW, Consulting Physician; Professor SNYDER, Attending Surgeon.

Tuberculosis Hospital, Fourteenth and Upshur Sts., N. W.—Members of the Faculty on its staff: Professor CLAYTOR and Dr. RANDOLPH, Clinical Medicine; Dr. REICHELDERFER, Clinical Surgery; Professor RICHARDSON, Ophthalmology.

CLASSIFICATION AND ADVANCEMENT OF STUDENTS.

Students are divided into four classes, according to their proficiency and the time spent, viz: first year, second year, third year, and fourth year.

Proficiency in all subjects is marked on the scale of 100.

Examinations are held at the end of the course in each subject.

In determining the proficiency of a student his laboratory and clinical work, his quiz record, attendance, and result of examination are all considered.

To be *advanced* a student must obtain a general average of 75 or more in all subjects of the year, and must not fail in more than one major or two minor subjects.

Students who obtain a general average of 75 or more, but who fail in not more than one major or two minors, may be advanced **conditioned** and may be permitted at the next examination period a re-examination in the subjects in which they fail, but all conditions must be removed before a student can be again advanced.

Students who fail of advancement or graduation will not be allowed re-examination, except by special permission of the Faculty, and must

repeat all subjects in which they obtained less than 85 during the year, and pass an examination on all majors of preceding years in which they obtained less than 85 before they can be advanced or graduated. Students who fail to appear at the regular examinations will not be examined until the next regular examination, except by special permission of the Faculty. In special examinations a fee of \$5.00 will be charged for each subject. Students who fail to pass satisfactorily their practical laboratory examinations will be required to repeat the laboratory courses. Students will not be admitted to examination unless they have paid all fees due at the time.

A student who has failed of graduation after repeating his final year will not be permitted to maintain his connection with the school.

REQUIREMENTS FOR GRADUATION.

Every candidate for the degree of Doctor of Medicine must be at least twenty-one years of age and of reputable character. He must have complied with the admission and other requirements herein set forth. He must have attended at least 80 per cent of all required instruction during four sessions of eight months each in four separate years, must have satisfactorily completed all his courses and passed all his examinations. He must be present at the time specified for the final examinations, and also at Commencement. The degree is not conferred in the absence of a candidate except by special consent of the President's Council. Graduates of other accredited colleges who desire degrees must spend one year in residence at this school.

Candidates who in their work and examinations attain general averages of 90 or more will be presented to the Faculty for consideration with reference to being designated at "having graduated with distinction." If in the opinion of the Faculty such candidates have shown themselves to be possessed of more than ordinary merit, they will have inscribed upon their diplomas beneath their degree the words "with distinction."

SCHOLARSHIPS.

Four scholarships are provided for students.

Corcoran Scholarships.—In recognition of the liberality of the late W. W. Corcoran in endowing the University for the Department of Medicine, the Faculty of Medicine has established in the department four free scholarships.

Two of these scholarships are open for competitive examination to the graduates of the several high schools of the District of Columbia and are awarded to the two students whose averages are highest.

One scholarship is open for competitive examination to graduates

of any reputable high school or college who shall give satisfactory written evidence of pecuniary inability and certificates of good moral character and industry, and is awarded to the graduate whose average is highest.

The remaining scholarship is open for competitive examination to students who, though not graduates of any high school or college, give satisfactory evidence that they are fitted by previous education for the study of medicine, and at the same time give satisfactory written evidence of pecuniary inability and certificates of good moral character and industry, and is awarded to the student whose average is highest.

In establishing these averages professional aptitude and general qualifications are considered along with scholastic ability.

Applications for scholarships should be filed with the Dean not later than May 15. Students holding scholarships pay the matriculation, library, laboratory, and graduation fees, and make the deposit to cover breakage. Holders of scholarships must maintain a satisfactory scholastic average.

PRIZES.

A prize from the Ordronaux Prize Endowment will be awarded under conditions determined by the University authorities.

Professor ACKER gives a prize for the best examination in Pediatrics.

Professor BUTLER gives a prize for the best examination in Ophthalmology.

Professor HAGNER gives a prize for the best examination in Genito-Urinary Diseases.

HOSPITAL APPOINTMENTS.

Interns are annually appointed in the University Hospital. The externs are appointed from the student body. These appointments are made upon competitive examinations under conditions determined by the governing authorities of the Hospital. Appointments to similar positions are open to the graduates and undergraduates of this school in the following other hospitals of the city: Garfield Memorial Hospital, Emergency Hospital, Columbia Hospital for Women, Casualty Hospital, Providence Hospital, Washington Asylum Hospital, Children's Hospital, Episcopal Eye, Ear, Throat, and Nose Hospital.

FEES AND CONTINGENT EXPENSES.

1. Matriculation (payable but once).....	\$5
2. Annual library fee	3
3. Tuition fee per annum, including all charges for materials.....	150
4. Graduation fee	10
5. Fee for a certificate under the seal of the University.....	2

A deposit of \$10 to cover breakage in laboratory courses and damage to the building or apparatus is required. Any unforfeited balance is returned to the student.

Persons are allowed to register as auditors for the regular fees without being required to take active part in the exercises or to pass examinations but no credit will be allowed for such attendance.

No registration will be accepted for less than a full semester, and no change in the courses undertaken at the time of registration will be made unless approved by the Dean. *Withdrawals during the semester will be granted only on recommendation of the Dean and the approval of the President.*

Students are urged to purchase their own microscopes, but those who do not care to do so may rent them from the University at the following rates:

Microscope for Histological Laboratory use.....	\$5
Microscope for Bacteriological, Pathological, and Clinical Microscopy Laboratory use	6

Matriculation, library, other fees and deposits are due in full in advance. Tuition may be paid in eight monthly installments in advance. Students who are unable to pay their fees monthly in advance will be required to file an acceptable personal or corporate bond of \$200 as security for future payment. In every instance all indebtedness must be discharged on or before May 1 of the current school year. All fees are payable at the office of the Dean.

WITHDRAWALS.

A certificate of work actually done will be given to any student wishing to withdraw or transfer to some other school during the session. Written notice of such withdrawal or transfer must be filed with the Dean at the time of requesting the certificate, and the student must have paid all fees and dues chargeable against him up to the end of the month in which he withdraws.

BOARD AND ROOMS.

A register of boarding houses is kept by the Treasurer. Accommodations cost from \$25 to \$40 a month.

For catalogues, application blanks, and further information, address

THE DEAN,
Department of Medicine,
The George Washington University,
1325 H Street, N. W.,
Washington, D. C.

DEPARTMENT OF DENTISTRY

FACULTY.

CHARLES HERBERT STOCKTON, LL.D.....	PRESIDENT OF THE UNIVERSITY
JOHN ROLAND WALTON, D.D.S.....	Dean and Professor of Prosthetic Dentistry and Orthodontia
DANIEL KERFOOT SHUTE, M.D.....	Professor of Neuro-Anatomy
HENRY CLAY THOMPSON, D.D.S.....	Professor of Operative Dentistry
CHARLES EDWARD MUNROE, Ph.D., LL.D.....	Professor of Chemistry
SHEPHERD IVORY FRANZ, Ph.D.....	Professor of Physiology
CHARLES STANLEY WHITE, M.D.....	Professor of Oral Surgery
FREDERICK FULLER RUSSELL, M.D.....	Professor of Bacteriology and Pathology
NOBLE PRICE BARNES, M.D.....	Professor of Materia Medica and Therapeutics
MATHEW KOLLIG, M.D.....	Professor of Anatomy
JOHN ROBERT DE FARGES, D.D.S.....	Associate Professor of Dental Metallurgy, Jurisprudence, Economics, and Ethics
CHARLES TURK BASSETT, D.D.S.....	Associate Professor in Charge of the Dental Infirmary
ALLEN SCOTT WOLFE, D.D.S.....	Associate Professor of Crown and Bridge Work
CADMUS LINDEN ODOR, D.D.S.....	Associate Professor of Operative Technics
WILLIAM FRANCIS LAWRENCE, D.D.S.....	Associate Professor of Prosthetic Technics
CHARLES FRANKLIN CRAIG, M.D.....	Associate Professor of Pathology and Bacteriology
ARTHUR BARTON CRANE, D.D.S....	Associate Professor in Oral Surgery
D. DEWITT BEEKMAN, D.D.S...	Associate Professor of Materia Medica and Therapeutics
EDWARD GRANT SEIBERT, M.D.....	Associate in Chemistry
FRANK ADELBERT HORNADAY, S.B., M.D.....	Associate Professor of Chemistry
HARRY RANDALL ELLIOTT, M.D.....	Associate in Physiology
WILBUR R. BRANDENBURG, M.D.....	Associate in Bacteriology and Pathology
J. LEWIS RIGGLES, M.D.....	Associate in Anatomy
HENRY JAMES NICHOLS, M.D.....	Associate in Bacteriology and Pathology
JOHN WINSLOW TAYLOR, D.D.S.....	Instructor in Prosthetic Technics
CHARLES GARDNER SHOEMAKER, D.D.S.....	Instructor in Operative Technics

HENRY CISELL YOUNG, D.D.S.....	Instructor in Prosthetic Technics
HERBERT CORNWELL HOPKINS, D.D.S.....	Lecturer on Orthodontia Technics
JOHN POTTS FILLEBROWN, M.D.....	Instructor in Physiology
ALBERT PERKINS TIBBETS, A.B., M.D.....	Instructor in Anatomy
GEORGE MILLER SHARP, D.D.S.....	Lecturer on Oral Prophylaxis
RALPH MICHELL LECOMTE, M.D.....	Instructor in Pathology and Bacteriology
CHARLES HARVEY BOWKER, M.D., Ph.D.....	Instructor in Anatomy
MARION EDWYN HARRISON, D.D.S....	Demonstrator in Dental Infirmary

GENERAL STATEMENT.

The first course of lectures in the Dental School began November, 1887, under the title of "The Columbian University Dental Department." The course then extended over two years of five months each. Two years later the course was extended to seven months; but, this additional time being found inadequate to keep pace with the ever-increasing demand for higher dental education, the course was gradually increased, until now it extends over three years of eight months each.

The next academic year begins on Wednesday, September 25, 1912, and ends on Wednesday, June 11, 1913. Students should register promptly at the office of the Dean at the beginning of the session, and no student can be received and credited with a full term after ten days from the first lecture. Final examinations are held at the conclusion of the instruction in each subject. The degrees are conferred at Commencement, June 11. For further information communicate with the Dean of the Dental Department or the Secretary of the University.

ADMISSION.

Candidates for matriculation must show that they are fitted by previous education to study dentistry. For this purpose they must present a satisfactory certificate of their attainments from an approved school or college, or they must pass an examination.

Candidates are admitted without examination:

(1) Upon presenting a diploma or certificate of a reputable college conferring on them the degree of A.B. or S.B., or an equivalent degree in the arts and sciences.

(2) Upon presenting a diploma or certificate of graduation from a high school, academy, or preparatory school approved by the University as maintaining an adequate standard.

(3) Upon presenting a certificate of admission to the Freshman class of an approved college.

(4) Upon presenting a certificate of admission to another dental school approved by the University as maintaining an adequate standard.

Candidates unable to comply with the foregoing requirements are admitted upon passing an examination based upon the general requirement

of an accredited high school or its equivalent, modified to meet the regulations of State Dental Boards.

The scope of the different subjects is indicated in standard high school text-books.

A candidate may offer certificates of an approved school for work done in any preparatory subjects, and will be credited with the units represented by such work. A candidate failing to pass in two of three subjects of his examination may be admitted to the first year upon the condition that he make up the deficiency before entering the second-year class. The examinations are conducted by examiners appointed by the Superintendent of Schools of the District of Columbia.

The examinations for admission will be held in June and September, at the Dental Department. An applicant deficient in either Latin or Physics, or both, may be admitted to the first-year class conditioned in those subjects, but such conditions must be made up during the first year.

AUDITORS.

Persons are allowed to register as auditors for the regular fees without being required to take active part in the exercises or to pass examinations, but no credit will be allowed for such attendance only.

COURSE OF INSTRUCTION.

The course of instruction extends through three years of eight months each. The subjects taught during the course are divided as follows:..

FIRST YEAR.	SECOND YEAR.	THIRD YEAR.
Anatomy.	Organic Chemistry.	Operative Dentistry.
Physiology.	Operative Dentistry.	Orthodontia.
General Chemistry.	Prosthetic Dentistry.	Prosthetic Dentistry.
Histology.	Pathology.	Comparative Dental Anatomy.
Operative Technics.	Materia Medica	Oral Surgery.
Prosthetic Technics.	Operative Technics.	Orthodontia Technics.
Special Anatomy.	Prosthetic Technics.	Metallurgy.
	Infirmity Practice.	Prosthetic Technics.
	Bacteriology.	Infirmity Practice.
	Dental Histology.	Dental Therapeutics.
	Orthodontia Technics.	Dental Pathology.
	Infirmity Practice.	Dental Bacteriology.
	Clinics.	Dental Jurisprudence, Economics and Ethics.
		Infirmity Practice.
		Clinics.

These studies are further described in the following pages.

Hours of recitation, daily from 4.50 p. m. to 10.30 p. m.; 6.30 to 7.30 p. m., dinner hour.

PROSTHETIC DENTISTRY AND ORTHODONTIA.

JOHN ROLAND WALTON, D.D.S.....Professor
HERBERT CORNWELL HOPKINS, D.D.S.....Lecturer

1. PROSTHETIC DENTISTRY. All branches in this department will be under the supervision of the professor. He will deliver the lectures and manage in person and through his assistants the quiz work and course of instruction. This system will prevent confusion in method and technical procedures.

2. ORTHODONTIA. Junior year Orthodontia is a technical course with lectures and demonstrations. The Senior year is a review of the Junior studies with advanced lectures upon the irregularities of the teeth, local and constitutional. Each student is required to make a number of appliance upon models and practically correct cases of irregularity.

OPERATIVE DENTISTRY, DENTAL ANATOMY AND PATHOLOGY.

HENRY CLAY THOMPSON, D.D.S.....Professor

This course embraces lectures on the special anatomy and physiology of the teeth. The origin, growth, and eruption of the teeth receive minute attention, and are illustrated as their importance demands.

The methods of treating, filling, and extracting teeth receive attention in the lecture-room, and are demonstrated clinically by proficient operators. Extended consideration is given to dental pathology and therapeutics. This chair has personal supervision of the department of Operative Technics.

CHEMISTRY.

CHARLES EDWARD MUNROE, Ph.D., LL.D.....Professor
FRANK ALBERT HORNADAY, S.B., M.D.....Associate Professor
EDWARD GRANT SEIBERT, M.D.....Associate

The instruction in this subject embraces:

A short discussion of the principles of Physics in their relation to Chemistry, the principle of chemical philosophy, and the laws of chemical combination.

A study of the elements, metallic and non-metallic; the preparation,

properties, and reaction of their different compounds and their application in dentistry; Organic Chemistry, with special attention to those organic compounds that are of practical use; laboratory instruction in the determination of acids and bases, analyses of alloys, etc.

PHYSIOLOGY.

SHEPHERD IVORY FRANZ, Ph.D.....	Professor
HENRY RANDALL ELLIOTT, M.D.....	Associate
JOHN POTTS FILLEBROWN, M.D.....	Instructor

This subject is taught in lectures, recitations, and laboratory exercises. In the lectures and recitations special emphasis is placed upon those parts of physiology that have a known bearing upon dental medicine and surgery, especially digestion, secretion, and the nervous system. Three laboratory periods a week during a semester give the student first-hand knowledge of the principal facts about the general functions of tissues, and the special functions of the nervous system, the special senses, the heart, circulation, digestion, and respiration.

ANATOMY.

DANIEL KERFOOT SHUTE, M.D.....	Professor
MATTHEW KOLLIG, M.D.....	Professor
J. LEWIS RIGGLES, M.D.....	Associate
ALBERT PERKINS TIBBETS, A.B., M.D.....	Instructor
CHARLES HARVEY BOWKER, M.D., Ph.D.....	Instructor

The instruction in Anatomy is given in a graded course of lectures, recitations from prescribed text-books, and especially by practical work in the dissection of the cadaver. The lectures are illustrated by the use of dry and wet dissections of the cadaver, by models, diagrams, charts, and sciopticon views.

Practical work in osteology and in dissection of the head are of fundamental importance. For the study of these subjects the class is divided into sections in order to make the instruction as practical as possible. The bones of the skeleton are placed in each student's hands, and he is instructed and quizzed upon all their important features.

MATERIA MEDICA AND THERAPEUTICS.

NOBLE PRICE BARNES, M.D.....	Professor
D. DEWITT BEEKMAN, D.D.S.....	Associate Professor

Instruction in these subjects embraces:

The study of crude drugs and their preparations and the art of prescribing; the physiological action of drugs in the human system; the

practical application of drugs and other therapeutical agencies to the prevention and cure of diseases and the relief of suffering, together with their antidotal relation to poisons.

The subject is taught by means of lectures, recitations, and blackboard illustrations, and is made practical to as great a degree as is compatible with a sufficiently thorough understanding of its principles.

In connection with this chair is a pharmaceutical laboratory, well equipped with modern appliances, in which are taught the making of typical preparations of the Pharmacopoeia, prescription writing, and the compounding of prescriptions.

Special attention is given to those drugs that are of most value in the practice of dentistry.

ORAL SURGERY.

CHARLES STANLEY WHITE, M.D.....Professor
ARTHUR BARTON CRANE, D.D.S.....Associate Professor

Instruction in this subject will consist of didactic lectures, recitations, case histories, together with clinics at regular intervals.

The lectures will deal with surgical bacteriology and pathology, surgical technique, anesthesia, wounds, hemorrhage, shock, new growths, constitutional diseases, plastic operations upon the palate and face, dislocation and fracture of the maxillae. Charts, diagrams, photographs and stereopticon slides will supplement the lectures.

In the clinics at the Emergency Hospital, illustrative cases will be shown. The student will be expected to attend such operations which pertain to this subject.

HISTOLOGY.

MATTHEW KOLLIG, M.D.....Professor
ELIJAH WHITE TITUS, M.D.....Instructor

The course in Histology consists in a systematic presentation of the subject of the minute anatomy of the various parts of the body, especial attention being devoted to the histology of the teeth and neighboring structures. The subject is presented partly by systematic lectures, and more especially by the practical study by the individual students of actual specimens under the microscope. The methods of preparation of microscopical specimens are presented and practiced in the laboratory. The projection microscope, affording valuable aid in illustrating and presenting the subject, is constantly used.

PATHOLOGY AND BACTERIOLOGY.

FREDERICK FULLER RUSSELL, M.D.....	Professor
CHARLES FRANKLIN CRAIG, M.D.....	Associate Professor
HENRY JAMES NICHOLS, M.D.....	Associate
WILBUR R. BRANDENBURG, M.D.....	Associate
JOHN BRADFORD BRIGGS, M.D.....	Associate
RALPH MICHELL LECOMTE, M.D.....	Instructor

The course begins with a consideration of the principles involved in the process of sterilization by dry and moist heat, the relative value and mode of application of each, and an explanation of the construction of the apparatus employed for the purpose. The use and construction of the thermostat is taken up at the same time and the student taught how he can dispense with these costly appliances in emergencies.

The composition and modes of preparation of the various nutritive media are next considered, working formulas given, and the student required to prepare them at least once in the laboratory. This is followed by a discussion of bacteria as a class, their position in the biological world, their classification, distribution, and the general and special characters that belong to them.

After this preparatory training the various methods in use for the isolation and study of bacteria are taught by practical demonstration and practiced by the students, after which the most important pyrogenic organisms are studied in detail, giving special attention to those found in the nasal and oral cavities.

The aim of the course is chiefly to afford the students an opportunity to become practically familiar with bacteriological working methods, and to enable them to isolate and identify the bacteria present in suppurative processes, as well as to comprehend intelligently the references to micro-organisms in the current professional literature of the day.

PROSTHETIC TECHNICS.

WILLIAM FRANCIS LAWRENCE, D.D.S..	Associate Professor, Senior Year
JOHN WINSLOW TAYLOR, D.D.S.....	Instructor, Junior Year
HENRY CISSEL YOUNG, D.D.S.....	Instructor, Freshman Year

The technic laboratories are thoroughly equipped for their particular work. The course in prosthetic technics extends through the Freshman, Junior, and Senior years.

The first year is a technical and didactic course. The students are taught the proper equipment of a dental laboratory; the preparation of the mouth for dentures; methods of taking impressions of the mouth and manipulation of the various impression materials; the preparation

and mounting of models; selection and artistic arrangement of teeth; the construction of plastic dentures and crowns with general details.

In the Junior class the course is a review of the Freshman year with extended technical and didactic work, embracing a practical course in the swaging of the various metals, as taking impressions, making models and dies, swaging, rimming, attaching teeth by rubber, and in general construction of metal dentures, crown and bridge work.

The Senior year is a practical course, embracing the swaging of plates, teeth attached by soldering, clasps porcelain work, advanced bridge-work, removable bridges, and the detailed construction of all work in prosthetic dentistry.

The work of the Department is under the immediate supervision of the associate professor.

OPERATIVE TECHNICS.

CADMUS LINDER ODOR, D.D.S.....Associate Professor
CHARLES GARDNER SHOEMAKER, D.D.S.....Instructor

This subject is taught by lectures, illustrated by enlarged models and drawings, together with demonstrations of instruments and materials. The students perform exercises in manipulative procedure under the direction of the instructors.

The subjects embraced in the course consist, first, of the study of dental nomenclature, that the student may acquire an understanding of the technical terms used in the course of his dental studies. This is followed by descriptive dental anatomy and the forms and surface markings, of each tooth studied, the natural teeth, as well as enlarged models and drawings being used for the purpose. Each student is required to make various sections of the teeth for the thorough study of the pulp chambers and root canals and their relations to the external surface of the teeth.

That tooth-forms may be more perfectly impressed upon the mind of the students, each one is required to carve a tooth of the several classes, as incisor, cuspid, bicuspid, and molar, in bone or artificial ivory, representing the actual form and size of the natural organ. Cavities are classified and illustrated by drawings and models, followed by their preparation and filling in technic forms by the student. Treating and filling root canals is given full attention, the students performing operations of this kind upon natural teeth mounted for the purpose.

All work, in its relation to operative dentistry, is given the necessary consideration to fit the student for meeting, as far as possible, the actual requirements of the infirmary. The operations in the technic department require a large number of natural teeth and a sufficient supply is difficult to obtain.

COMPARATIVE DENTAL ANATOMY.

The senior students will study in this course the food habits and the teeth of animals. The forms of teeth and their uses as weapons of offense and defense will be studied.

CROWN AND BRIDGE WORK, GOLD INLAY, AND PORCELAIN.

ALLEN SCOTT WOLFE, D.D.S.....Associate Professor

METALLURGY.

JOHN ROBERT DE FARGES, D.D.S.....Associate Professor

The subject of Metallurgy taught in the chemical laboratory will be reviewed and an extended course will be given in metals, alloys, and amalgams which are used in dentistry.

PROFESSIONAL ETHICS, DENTAL JURISPRUDENCE, AND ECONOMICS.

These lectures on ethics consist of a brief statement of the moral obligations of professional men to each other and to their patients the duty of upholding the honor and dignity of the profession, and the differences between the profession and business or manufacturing pursuits.

The lectures on jurisprudence will follow the text-book by Dr. Rehfuss, which fully elucidates the legal relation of the dentist to his patients, the importance of dental records, the limitations of dental practice, the liabilities incurred by those who administer anesthetics, the penalties, etc.

ECONOMICS. This course will instruct the student in the proper methods to insure a practice and to retain patients; will discuss business relations between patients and dentist, fees, book and card systems, and the general economy in conducting an office.

Instruction in this course is systematically given by lectures and clinics. The course in technique extends through the Freshman, Junior, and Senior years.

Students are taught the principles and practice of inlay work, porcelain crowns, high and low fusing bodies, the use of the electric and gas furnaces.

ORAL PROPHYLAXIS.

GEORGE MILLER SHARP, D.D.S.....Lecturer

This subject will be taught didactically, and clinically practical work by the students in the treatment of the oral cavity will be required.

THE DENTAL INFIRMARY.

CHARLES TURK BASSETT, D.D.S.....	Associate Professor in Charge
MARION EDWYN HARRISON, D.D.S.....	Demonstrator
JOHN WINSLOW TAYLOR, D.D.S.....	Demonstrator
HENRY CISELL YOUNG, D.D.S.....	Demonstrator

The Infirmary is open every week-day the entire year. An abundance of clinical material is readily available. In fact, as many patients present themselves as can possibly be attended to by the students. It is under the immediate supervision of the Demonstrator in charge, who is present from 1 until 5 o'clock.

CLINICAL STAFF.

CAESARE LOUIS CONSTANTINI, D.D.S.....	Clinician in Charge
ARTHUR DURDAN WEAKLEY, D.D.S....	Clinical Instructor in Dentistry
THOMAS LOCKE RUST, D.D.S.....	Clinical Instructor in Dentistry
GEORGE BERTRAM ROPER MACDONALD, D.D.S.....	Clinical Instructor in Dentistry
WILLIAM CARL KILLINGER, D.D.S....	Clinical Instructor in Orthodontia
MARK FLORUS FINLEY, D.D.S.....	Clinical Instructor in Orthodontia
ALEXANDER DUNNINGTON COBEY, D.D.S.....	Clinical Instructor in Non-Cohesive Gold
GEORGE MILLER SHARP, D.D.S.....	Clinical Instructor in Special Crown Work
ZENAX WILBUR ALDERMAN, D.D.S....	Clinical Instructor in Electro- Therapeutics
ROBERT EDWIN LAYTON, D.D.S.....	Clinical Instructor in Dentistry

TEXT-BOOKS AND WORKS OF REFERENCE.

(The works first named and in *italics* are preferred.)

- ANATOMY.—*Cunningham's Text-book of Anatomy*; *Cunningham's Manual of Practical Anatomy*; Dental Anatomy, Black's.
- PHYSIOLOGY.—*Text-books*: Haliburton's Physiology; Howell's Physiology; Tigerstedt's Physiology.
- PATHOLOGY AND BACTERIOLOGY.—Delafield and Prudden's Pathology; Jordan's Bacteriology.
- CHEMISTRY.—*Simon's Chemistry*; *Barha's College Chemistry*; *Holland's Medical Chemistry*.
- MATERIA MEDICA.—*H. C. Wood's Therapeutics*; Hare's Practical Therapeutics; A. A. Stevens' Modern Materia Medica and Therapeutics; Culbreath's Materia Medica and Pharmacy; National Dis-

pensatory Reference Text-books, Osborne, Wilcox, Sollmann, Shoemaker, U. S. Pharmacopœia and National Formulary; Dental Materia Medica and Therapeutics (Prinz); Modern Dental Materia Medica, Therapeutics, and Pharmacology (Buckley); Medical Dictionary (Dorland).

PROSTHETIC DENTISTRY.—*The American Text-book of Prosthetic Dentistry*; Essig's Dental Metallurgy.

OPERATIVE DENTISTRY.—*Harris' Principles of Practice*; Tome's Dental Anatomy and Surgery; Taft's Operative Dentistry; American System of Dentistry (Litch); Kirk's Operative Dentistry; Johnson's Operative Dentistry.

ORAL SURGERY.—Scudder's Tumors of the Jaws; Ivy's Applied Anatomy and Oral Surgery.

HISTOLOGY.—Nichols, Bohm and Davidoff; Anatomy and Histology of the Mouth, by Bromell.

ORTHODONTIA.—Angle, Treatment of Malocclusion of the Teeth and Fractures of the Maxillæ; Talbot, Irregularities of the Teeth; Jackson, Orthodontia.

DENTAL JURISPRUDENCE.—Rehfuss.

DENTAL PATHOLOGY AND THERAPEUTICS.—Burchard.

COMPARATIVE DENTAL ANATOMY.—Thompson.

GRADUATION.

Candidates for graduation must have attended three full courses of lectures, each of eight months' duration, and three courses of clinical instruction in this Department, during the regular winter term and in separate years. Students are examined at the end of the regular course upon all subjects taught them during that course. Should the student fail in his examination in course, he may be reexamined in the fall. All fees must be paid and Infirmary requirements complied with before the student may present himself for examination.

Students must enter before, or within ten days after, the opening lecture of the regular course. They may register at any time during the Infirmary course, and thus begin Infirmary practice at once upon payment of twenty-five dollars, which amount will be deducted from their tuition fees for the succeeding regular term.

The candidate for graduation must be examined upon all subjects taught in this Department, and before the examination he must perform operations upon the natural organs in the Infirmary, and present the demonstrators in charge with a well-constructed specimen of dental mechanism made by himself in the dental laboratory of the University.

In addition to the above requirements, the moral character and habits of the candidate, his industry, and diligent attendance will be taken into consideration. Notable negligence, immorality, or habitual absence

from the lectures will preclude the candidate from attaining his degree, even though he may have acquired sufficient technical knowledge to pass a creditable examination. This reservation on the part of the Faculty of the right to make good moral character a prerequisite for graduation must not be overlooked.

The student also, during and between the sessions, must comply with the State laws regulating the practice of Dentistry, and act in accordance with the recognized code of ethics of the dental profession.

The degrees are conferred by The George Washington University, incorporated by Act of Congress of the United States.

COURSES IN ARTS AND SCIENCES.

Students taking a full course for a degree may be admitted without additional fee, except laboratory fees, to courses for which they are qualified, in the Department of Arts and Sciences, the aggregate of such courses not to exceed six hours per week.

LOCATION.

The Dental Building is No. 1325 H Street N. W. It is within half a square of all lines of street cars going to every part of the city.

The Dean may be seen personally at 724 9th Street N. W., on any week day, and also at the Dental Building, 1325 H Street N. W., on Tuesday and Thursday of each week at 4.30 p. m. during the session.

FEES AND CONTINGENT EXPENSES.

1. Matriculation fee (payable once).....	\$5
2. Annual library fee.....	2
3. Tuition fee per annum, including all charges for materials...	125
4. Late registration fee in the case of students registering for the first term after October 20, or for the second term after February 20, excepting for courses which do not begin with the terms.....	2
5. Fee for graduation	10
6. Fee for a certificate under the seal of the University.....	2
7. A deposit of \$10 to cover breakage in laboratory courses and damage to the building or apparatus is required. Any unforfeited balance is returned to the student.	

No registration will be accepted for less than a full semester, and no change in the courses undertaken at the time of registration will be made unless approved by the Dean. *Withdrawals during the semester will be granted only on recommendation of the Dean and the approval of the President.*

Students are furnished microscopes at the following rates:

Microscope for histological laboratory use.....	\$5
Microscope for bacteriological, pathological, and clinical micro- copy laboratory use	6

The cost of installments for the first year amounts to about \$20, and the cost of text-books to about \$30.

PAYMENT OF FEES.

Matriculation, library, other special fees and laboratory deposits are due in full in advance. Tuition and laboratory material fees may be paid in eight monthly instalments in advance. Students who are unable to pay their fees monthly in advance will be required to file an acceptable personal or corporate bond for \$200 as security for future payment. In every instance all indebtedness must be discharged on or before May 1 of the current academic year. Fees are payable at the office of the Treasurer, 2024 G Street, or at the office of the Medical Department, 1325 H Street.

BOARD AND ROOMS.

A register of boarding-houses is kept by the Treasurer. Accommodations cost from \$25 to \$40 a month.

For catalogues, application blanks and further information, address
J. ROLAND WALTON, D.D.S., *Dean*,
724 9th Street N. W.

PART III

ASSOCIATED COLLEGES

National College of Pharmacy

College of Veterinary Medicine

Institutions in the District of Columbia organized as corporations under the Charter of the University, having separate financial foundations but educationally forming a part of the system of the University.

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TRUSTEES OF THE NATIONAL COLLEGE OF PHARMACY

The President of the University, *ex officio*.

1913.

WYMOND H. BRADBURY.
SAMUEL WAGGAMAN.

JAMES K. EPPLEY.
FRANK P. WELLER.

1914.

CHARLES B. CAMPBELL.
LEWIS FLEMER.

HERBERT C. EASTERDAY.
WILLARD S. RICHARDSON.

1915.

FRANK C. HENRY.
HENRY E. KALUSOWSKI.

SAMUEL L. HILTON.
WILLIAM T. KERFOOT.

Officers of the Board.

Chairman, HENRY E. KALUSOWSKI.

Vice Chairman, LEWIS FLEMER.

Secretary, WYMOND H. BRADBURY.

Treasurer, H. C. EASTERDAY.

FACULTY OF THE NATIONAL COLLEGE OF PHARMACY.

CHARLES HERBERT STOCKTON, LL.D....PRESIDENT OF THE UNIVERSITY

HENRY E. KALUSOWSKI, M.D., Phar.D...Dean and Professor of Pharmacy

SAMUEL WAGGAMAN, M.D., Phar.D.....Professor of Materia Medica,
Botany, and Toxicology

GEORGE A. MENGE, Ph.D.....Professor of Chemistry and Physics

HOWARD M. BRADBURY, Phar.D....Professor of Analytical Chemistry

BURTON J. HOWARD, B.S.....Professor of Microscopy

HENRY B. FLOYD, Phar.D.....Professor of Mercantile Pharmacy

ALEXANDER MUNCASTER, Phar.D., LL.B., LL.M.....Professor of
Pharmaceutical Jurisprudence

DOUGLAS TSCHIFFLEY, Phar.D..Assistant to the Professor of Pharmacy

LORING W. BEESON, Phar.D.,
Assistant to the Professor of General Chemistry

HOMER K. BUTLER, Phar.D.,
Assistant to the Professor of Analytical Chemistry

CALENDAR.

1912

September 19, *Thursday*—Admission Examinations begin at 1 p. m., in
the Lecture Room of the College.

September 25, *Wednesday*—Forty-first Session begins.

November 28, *Thursday*—Thanksgiving Day, a holiday.

RECESS FROM DECEMBER 19, 1912, TO JANUARY 2, 1913, BOTH INCLUSIVE.

1913

February 22, *Saturday*—a holiday.

May 5, *Monday*—Annual Examinations for promotion and graduation
begins.

June 11, *Wednesday*—Commencement.

GENERAL STATEMENT.

The National College of Pharmacy, which is the outgrowth of the Columbian Pharmaceutical Association, organized in April, 1871, was chartered under the provisions of an act of Congress in 1872, and opened its doors to students November 11 of that year. In February, 1906, it became a member of the educational system of The George Washington University, under the charter of the University granted by Congress March 3, 1905, providing for the organization of colleges. The President of the University is *ex-officio* president of the National

College of Pharmacy, and the College is represented in the President's Council by its Dean.

The work of the College embraces courses in chemistry, botany, materia medica and toxicology, pharmacy and pharmaceutical laboratory work, analytical chemistry, microscopy, mercantile pharmacy, and pharmaceutical jurisprudence. Three years are required for the completion of the prescribed course.

The new College building is centrally located on I street northwest, between eighth and Ninth streets. It is easily reached by either of the four principal street car lines of the city.

PRELIMINARY EDUCATION AND EXAMINATION.

The College requires of its Matriculants a knowledge of the branches usually taught in the public schools of Washington, D. C., to the extent of *two years in the high schools or its equivalent*, and they must be at least seventeen years of age. Evidence of this may be shown by certificates from reputable teachers or by the results of an examination to be held at the College, at one o'clock p. m., THURSDAY, September 19, 1912.

Beginning with the session of 1914-15, candidates for admission to the College will be required to have three years' high school instruction or its equivalent. Beginning with the session of 1916-17, candidates will be required to have four years' high school instruction or its equivalent.

SPECIAL COURSES.

Students may select one or more of the branches taught and attend the lectures and laboratory work during the time set apart for such study.

Students taking single tickets are not entitled to take the examinations for the degree conferred by the College.

THE DEGREE.

The degree conferred is *Doctor of Pharmacy*.

QUALIFICATIONS FOR THE DEGREE.

1. The student shall have attended three courses of instruction in Chemistry, Pharmacy, Analytical Chemistry, Materia Medica, Botany, and Toxicology; and two in Microscopy, the last of which must have been in this College; and one course each in Mercantile Pharmacy and Pharmaceutical Jurisprudence.

2. He must have passed a satisfactory examination in each of the branches taught.

3. He must be recommended by the Board of Examiners.

MATERIA MEDICA, BOTANY AND TOXICOLOGY.**FRESHMAN COURSE.**

The first lectures are introductory to the study of elementary botany, after which follow vegetable histology and plant physiology. The subject-matter of these lectures is thoroughly explained by means of charts, diagrams, and specimens.

JUNIOR COURSE.

This course is devoted to the consideration of the various theories concerning the vegetable world and the practical results obtained by experienced laborers in this science. The lectures are illustrated by means of the lantern and microscope. A large part of the course is devoted to a consideration of the official organic drugs.

SENIOR COURSE.

The lectures are mainly upon the active principles, adulterants, official preparations, therapeutic uses, and doses; after which the organic and inorganic poisons are taken up under three heads: 1st, Corrosive; 2d, Irritant; and 3d, Neurotic Poisons. Under these three divisions are explained briefly their action, detection, and antidote.

PHARMACY.**FRESHMAN COURSE.**

This course is given to the study of the various pharmaceutical processes and operations. Following in the order named are lectures on meteorology, heat, thermometry, evaporation, distillation, fusion, sublimation, calcination, granulation, comminution, solution, filtration, clarification, decoloration, precipitation, crystallization, and extraction, during which the various methods used to bring about the desired results will be illustrated.

JUNIOR COURSE.

During a part of this course the time is given to the application of the processes considered during the Freshman year to pharmacopœial preparations, and such modifications as adapt them to special uses.

The latter part of this course is taken up with the study of official preparations obtained from the elementary bodies beginning with bromine, chlorine, iodine, phosphorus, and sulphur, following by carbon,

boron, silicon, the inorganic acids, potassium, sodium, lithium, ammonium, magnesium, calcium, barium, zinc, aluminum, cerium, cadmium, manganese, iron, chromium, lead, silver, copper, mercury; antimony, arsenic, bismuth, and gold.

SENIOR COURSE.

The time during this course is mainly given to the study of compounds chiefly derived from organic matter, and products obtained therefrom, amylaceous and saccharine substances; glucosides and alkaloids, volatile oils and animal products used in pharmacy, vegetable oils, soaps, and products from resins.

ANALYTICAL CHEMISTRY.

The instruction in this Department is intended to present the chemical tests of the United States Pharmacopœia, with methods for the identification of substances and for the detection of impurities; to instruct in the methods of assaying and the use of volumetric solutions, and to enable students to analyze any ordinary mixture of inorganic material.

For the purpose of carrying out the work of this Department a large, well-equipped laboratory is provided with all the usual water and gas facilities, and has recently been wired and installed with electric apparatus whereby electro-chemical methods of analysis can be taught and the application of the electric current to the preparation of chemicals by the methods of electro-chemistry can be illustrated before the students. These and other facilities afford students exceptional opportunities to become familiar with the fundamental principles of the science of chemistry.

The first year is devoted to experimental work so arranged as to supplement the lectures in General Chemistry.

The second year covers a systematic course in qualitative analysis in connection with the test of the United States Pharmacopœia.

The third year is devoted to volumetric analysis by means of the standard solutions of the Pharmacopœia.

GENERAL CHEMISTRY AND PHYSICS.

Inasmuch as the subjects of Analytical Chemistry and Pharmacy are fully provided for in other courses, these lectures are devoted more closely to the fundamental principles and classification which must underlie a thorough and systematic knowledge of Chemistry. Owing to the intimate connection existing between Chemistry and several branches of Physics, a number of lectures illustrating the more important laws and principles of some of these branches precedes the

regular course in Chemistry, and others on these subjects with which a prior acquaintance is less important follow after the student has acquired some knowledge of chemical changes. During the first half of the second year Physics and the non-metallic elements receive consideration, followed during the remainder of the second and a portion of the third year by the metals. The greater portion of the third year is devoted to the exposition of the more important facts, principles, and theories of Organic Chemistry.

MICROSCOPY.

The course of Microscopy gives instruction in the use of the compound microscope as an aid in the study and identification of drugs, and requires full attendance from Junior and Senior students.

The work includes both lectures and laboratory courses, and consists in the examination of plant tissue as illustrated in various vegetable substances most familiar to pharmacists. Special attention is given to the structural characteristics by which one drug can be distinguished from another as well as to the detection and identification of the most common adulterants used.

MERCANTILE PHARMACY AND PHARMACEUTICAL JURISPRUDENCE.

These courses are required in the Senior class only.

FEES.

Matriculation	\$5
Tickets for the full year's course of instruction, Freshman.....	80
Tickets for the full year's course of instruction, Junior.....	85
Tickets for the full year's course of instruction, Senior.....	90
Single tickets for Chemistry, Materia Medica, Botany, and Toxicology, each	20
Single tickets for Analytical Chemistry	25
Single tickets for Practical Pharmacy.....	25
Single tickets for Microscopy.....	20
Single tickets for Mercantile Pharmacy.....	10
Single tickets for Pharmaceutical Jurisprudence.....	10
Fee for Diploma	10

For further information consult the Dean, HENRY E. KALUSOWSKI,
808 I Street N. W.

BOARD OF TRUSTEES.

DAVID EASTBURN BUCKINGHAM, V.M.D.

JOHN LOCKWOOD, V.S.

JOHN POLLARD TURNER, V.M.D.

CHARLES HERBERT STOCKTON, LL.D....PRESIDENT OF THE UNIVERSITY

CHARLES EDWARD MUNROE, Ph.D., LL.D.....Professor of Chemistry

SHEPHERD IVORY FRANZ, Ph.D.....Professor of Physiology

JOHN LOCKWOOD, D.V.S.....Professor of Veterinary Surgery

JOHN POLLARD TURNER, V.M.D.... Professor of Theory and Practice of

Veterinary Medicine

FREDERICK FULLER RUSSELL, M.D., Major U. S. Army, Director Army

Medical School, Professor of Bacteriology and Pathology

THOMAS MALCOLM PRICE, M.S., Ph.D.....Professor of Physiological

Chemistry

HARRY WEBSTER GRAYBILL, B.Sc., M.A., D.V.M., Professor of Zoology

and Parasitology

HULBERT YOUNG, V.M.D., Assistant Professor of Veterinary Obstetrics

and Lecturer on Horseshoeing.

JOHN M. BUCK.....Assistant Professor of Veterinary Anatomy

ORIS DOW SWETT, S.M., LL.M.....Assistant Professor of Chemistry

JACOB TRAUM, D.V.M....Assistant Professor of Special Pathology and

Infectious Diseases

WILLIAM W. BRIDE, A. B., LL.B., Lecturer on Veterinary Jurisprudence

LOUIS B. CASTELL, Ph.D....Lecturer on Botany and Demonstrator

in Veterinary Materia Medica and Pharmacy

RALPH J. CARR, B.Sc.....Lecturer on Feeds and Feeding

HERBERT S. WILLIAMS, V.M.D.....Clinical Instructor in Military

Veterinary Science

ELIJAH WHITE TITUS, M.D.....Instructor in Hipology and

Eruhyology

TUNIS HICKS, V.M.D.....Instructor in Veterinary Anatomy

CHAUNCEY MERLE GRUBB, D.V.M. Lecturer on Animal Research

and Surgery

IRA S. POPE, V.M.D.....Lecturer on Veterinary Dentistry

and Lameness:

WILLIAM HENRY O'HARA, D.V.M.....Instructor in Veterinary
Medicine

.....Lecturer on Zootechnics, Dairy Inspection, and
Milk Hygiene

EDWIN HENRY INGERSOLL, S.BAssistant in Physiological Chemistry

HARRY A. LOCHBOEHLER, D.V.M.
Assistant in Veterinary Materia Medica and Therapeutics

REQUIREMENTS FOR ADMISSION.

Students presenting a diploma from any recognized college, normal or high school are eligible to admission without examination.

Students not having the above qualifications will be required to pass an examination equivalent thereto, credits being allowed for any subject or subjects on presentation of sufficient evidence.

ADMISSION OF STUDENTS FROM OTHER SCHOOLS.

Students of other recognized and approved veterinary schools may be admitted to this school as follows:

Those qualified to enter the second year of such a school may be admitted to the second-year class of this school, those qualified to enter the third year of their own school to the third year of this school; provided, however, that the subjects pursued by the applicants in their previous year or years are reasonably equivalent to those required in the same year or years in this school, and that the requirements for advancement from class to class are the equivalent of those in this school. Applicants may be required to submit to examination in all the subjects pursued by the previous class of this school.

EVIDENCE OF ATTENDANCE.

At the end of the college year each student is entitled to and shall receive a written statement giving the length of time spent in each study during the session and the grade received therein. This statement, or definite evidence of credit, shall be exacted from a student before he is given advanced standing in any veterinary college. (U. S. B. A. I. Cir. 150.)

ADVANCED STANDING.

Advanced standing will be given for degrees in Medicine, Dentistry, Veterinary Medicine, or Pharmacy.

Students holding degrees in Arts, Science, Philosophy, or Agriculture, who in the course of study for their degrees have pursued studies in chemistry, physiology, anatomy, histology, bacteriology, or pathology,

equivalent to the courses in these subjects in this college, may upon satisfactory evidence of their proficiency be credited with such studies; provided, however, that such students shall devote two years' study in veterinary medicine, the last year of which is passed in this College.

SPECIAL STUDENTS.

Students, approved by the Dean, not candidates for the degree of Doctor of Veterinary Medicine, may be admitted without examination to pursue any course they may elect. Such courses cannot, however, be subsequently considered as time spent in the course for the degree of Doctor of Veterinary Medicine. Nor can such students enter upon the regular veterinary course without complying with all the regular requirements for admission.

CLASSIFICATION OF STUDENTS.

Students are divided into four classes, according to their proficiency and the time spent, viz., first, second, third, or fourth year. Students cannot advance to a higher class with more than one major and one minor condition. Students failing in any subject or subjects may be permitted at the next examination period a reexamination in the subjects in which they fail. The Faculty may dismiss any student from the College, if in its judgment such student be deemed an unsuitable person, intellectually or otherwise, for the profession of veterinary medicine.

ORDER OF INSTRUCTION.

The subjects studied in each year are shown in the following table:

FIRST YEAR.	SECOND YEAR.	THIRD AND FOURTH YEAR.
Anatomy.	Bacteriology.	Practice.
Histology.	Pathology.	Surgery.
General Chemistry.	Physiology.	Obstetrics.
Materia Medica.	Surgery.	Therapeutics.
Horseshoeing.	Practice.	Meat Hygiene.
Botany.	Clinics.	Veterinary Jurisprudence.
	Bio-Chemistry.	Clinics.
	Pharmacy.	Parasitology.
	Anatomy.	Milk Hygiene.
		Zootechnics.
		Zoology.
		Control of Infectious Diseases.
		Canine Practice.

For lecture, laboratory and dissecting hours a schedule card is furnished.

Examinations are held at the end of each course. Clinical work in the veterinary and canine hospitals connected with the College and at abattoirs and stock and dairy farms is required of third and fourth year students.

ANATOMY.

JOHN M. BUCK, D.V.M.....Assistant Professor
TUNIS HICKS, D.V.M.....Instructor

The instruction in Anatomy is given in a series of lectures, demonstrations, recitations, and laboratory work, the latter being the most important.

The lectures are intended to present the general anatomical features of the horse and other domestic animals, and to point out the anatomical relations of the organs and parts of the body most subject to surgical operations.

The horse is used as the type subject in dissection, and every student is required to dissect all the parts of the horse, and such other of the domesticated animals, including the ox, sheep, swine, dog, and cat, as may prove most expedient.

The laboratory is well supplied with all of the parts of the skeleton of the horse, and portions of the skeleton of various other domestic animals, for the work in osteology. Ample material is always available for the dissection of joints, muscles, viscera, and the vascular and nervous systems. The laboratory is also provided with a complete model of the horse, showing the relation of all the organs and parts of the body, for demonstrations in general and surgical anatomy. The course is completed in the second year.

TEXT-BOOKS Sisson, Veterinary Anatomy.

HISTOLOGY AND EMBRYOLOGY.

ELIJAH WHITE TITUS, M.D.....Instructor

These subjects are taught by a series of carefully correlated lectures, recitations, quizzes, and demonstrations, and will include such instruction in microscopy as a working knowledge of the use of the simple and compound microscope and accessories, supplemented by the fundamental laws of optics; the method of preparing tissues for microscopic examination, and the technique of mounting.

Comparative histology will deal with the minute structure of the tissues and organs of various animals, including man. In addition to

the microscopical demonstrations, lantern demonstrations will also be given.

Embryology under this head will present the salient features of the anatomy and physiology of the fecundated ovule up to the time of birth.

TEXT-BOOK: Histology, Bohm, Davidoff & Huber.

PHYSIOLOGY.

HULBERT YOUNG, V.M.D.....Assistant Professor
SHEPHERD IVORY FRANZ, Ph.D.....Lecturer

The course in Physiology consists of lectures, demonstrations, and laboratory exercises. The lectures cover all the important facts and theories regarding bodily functions of the animal, and are illustrated by diagrams, models, and prepared specimens.

In the laboratory each student performs a number of experiments on blood, on the circulation, on digestion, on the general functions of nerves and muscles, and on the special senses of animals.

Special emphasis is laid on the relation of normal physiological functions to the disturbances of function in disease and upon the physiological action of drugs.

It is intended in this way to bring the work of the Physiological Laboratory and other exercises into closer relation with the succeeding course in Pathology, Therapeutics, and General Veterinary Medicine.

TEXT-BOOKS: Howell's Physiology, Smith's Veterinary Physiology.

GENERAL CHEMISTRY.

(First Year.)

CHARLES EDWARD MUNROE, Ph.D., LL.D.....Professor
OTIS DOW SWETT, S.M.....Assistant Professor

GENERAL CHEMISTRY.—A series of illustrated lectures, accompanied by recitations and exercises, on theoretical, inorganic, organic, and technical Chemistry. The student is required to take notes on these lectures, which he must submit for examination. *Tuesdays, Thursdays, and Saturdays*, at 4.50. Professor MUNROE and Mr. SWETT.

LABORATORY PRACTICE.—A laboratory course for the study of the principles of chemistry which is designed to instruct students in the methods of conducting chemical experiments. Professor PRICE.

TEXT-BOOKS: Holland's Medical Chemistry and Toxicology.

PHYSIOLOGICAL CHEMISTRY.

(Second Year.)

THOMAS MALCOLM PRICE, M.S., Ph.D.....	Professor
E. H. INGERSOLL.....	Assistant

This course will consist of lectures and laboratory instruction, and includes the study of water from a sanitary standpoint; the chemical examination of milk, the tissues and fluids of the body; the isolation of the digestive enzymes, and a study of their action in vitro.

MATERIA MEDICA AND THERAPEUTICS.

DAVID EASTBURN BUCKINGHAM, V.M.D.....	Professor
LOUIS B. CASTELL, Phar.D., M.D.....	Lecturer
HARRY A. LOCHBOEHLER, D.V.M.....	Demonstrator

First year. (1) Lectures upon and demonstrations of drugs and their preparations and doses used in veterinary practice will be followed by recitations to assist in memorizing. (2) Practical exercises will be given in prescription writing, also a short course in Veterinary Pharmacology.

Third year. (1) Systematic lectures upon the physiological action of drugs and their effects in disease, their therapeutic uses, and their methods of administration to animals. (2) Prescription writing, in which students are given hypothetical cases for which to prescribe. (3) The therapeutic application of various agencies not drugs.

TEXT-BOOK: Winslow's Veterinary Materia Medica and Therapeutics.

PRACTICE OF VETERINARY MEDICINE.

JOHN POLLARD TURNER, V.M.D.....	Professor
WILLIAM HENRY O'HARA, D.V.M.....	Instructor

This subject is taught by a series of lectures, recitations, quizzes, and clinics extending over a period of two years.

The student is personally drilled in all the various diseases and doctrines taught in a well regulated veterinary school.

Especial attention is given to practical work whereby the student can become proficient in the diagnosis and treatment of disease.

Visits are required to the three veterinary hospitals in connection with the University, and personal attention is given students in visits to various large stables in and adjacent to the city of Washington, where practical instruction is given the third and fourth year classes in physical diagnosis among horses, cows, and hogs.

Equal attention is given diseases of cattle as of horses, whereby the student is properly fitted for either city or country practice.

Diseases of food-producing animals will be thoroughly explained.

TEXT-BOOKS: Friedberger and Frochner's Pathology and Therapeutics of Domestic Animals; Robertson's Practice of Equine Medicine; Williams' Principles and Practice of Veterinary Medicine; Fleming's Manual of Veterinary Sanitary Science and Police; Glass' translation of Muller's Diseases of the Dog.

VETERINARY SURGERY.

JOHN LOCKWOOD, V.S.....Professor
CHAUNCEY MERLE GRUBB.....Instructor

The instruction given in this course embraces systematic lectures upon the principles and practice of Veterinary Surgery.

The different surgical operations are illustrated in clinic and upon the cadavar and the uses of all the important surgical instruments and appliances are demonstrated in the same manner. The use of anæsthetics, the practice of dental surgery, and castration on all domestic animals will receive special attention.

TEXT-BOOKS: Moeller's Operative Veterinary Surgery; Fleming's Operative Veterinary Surgery; Hobday's Canine and Feline Surgery; Williams' Principles and Practice of Veterinary Surgery; Pfeiffer and Williams' Surgical Operations; White's Restraint of Domestic Animals.

BACTERIOLOGY AND PATHOLOGY.

FREDERICK FULLER RUSSELL, M.D.....Professor

(Curator Army Medical Museum.)

BACTERIOLOGY.—This subject comprises laboratory instruction in the fundamental principles and methods of pure bacteriology. Thorough drilling is given in the preparation of culture media, in disinfection, sterilization, staining, and the general methods of bacterial differentiation. Following this course, which is given daily during October, the further study of bacteria is taken up in connection with and as applied to pathology.

Pathology comprises the laboratory study of the general and special phenomena of inflammation, and a detailed study of the pathological processes found in the various diseases. The relation of bacterial and other microphytic life to disease processes and results is studied coincidentally and constitutes a course in applied bacteriology. In connection with the laboratory work a course of lectures and demonstrations is given upon immunity, serum therapy, and protective inoculation.

SURGICAL PATHOLOGY.—A special course in the healing of wounds and injuries and in the pathology of surgical operations is given in the third year.

CLINICAL MICROSCOPY.—Comprising the study of the various tissues, fluids, ejecta, and dejecta, with a view to diagnosis of diseased conditions, is given in the first part of the third year.

TEXT-BOOKS: Delafield and Prudean's Pathology, Hiss & Zinsser's Text-book on Bacteriology.

SPECIAL PATHOLOGY AND INFECTIOUS DISEASES.

JACOB TRAUM, D.V.M.....Assistant Professor

The lectures in this course will be given with reference to the etiology, pathogenesis, symptoms, diagnosis, treatment, and prevention of the infectious diseases. Local and national regulations and measures governing the control and eradication of diseases will be clearly explained, with particular reference to the work of the United States Government in the eradication of infectious diseases.

INSPECTION AND POST MORTEM EXAMINATIONS.

JACOB TRAUM, D.V.M.....Assistant Professor

The subject involves the control of food animals destined for slaughter; their ante-mortem and post-mortem inspection with reference to the diseases which affect the wholesomeness of the meat. Further, the preparation of meat-food products, the various forms of preservation of meat and the conditions to which the meat and meat products are subject from the different infections and contaminations. The application of the Regulations of the Department of Agriculture in connection with the judgment of carcasses, meats, and meat-food products.

Practical demonstrations in meat inspection and judgment will be given at the local abattoirs.

TEXT-BOOK: Mohler and Eichhorn's translation of Edelmann's Meat Hygiene.

TEXT-BOOKS: Moore's The Pathology of Infectious Diseases of Animals; Friedberger and Froehner's Pathology and Therapeutics of Domestic Animals; Meat Inspection; Edelmann's; Mohler and Eichhorn translation.

ZOOTECHNICS AND MILK HYGIENE.

.....Lecturer

The course covers the chief phases of live-stock work, including

the judging, breeding, feeding, and management of horses, cattle, sheep, and swine.

It is introduced by discussions upon the origin of animal life, natural selections, the origin of breeds, and the domestication of animals.

The principles of breeding, heredity, environment, selection, individual conformation, the history and development of breeds, principles of animal nutrition, balanced rations, practical feeding, and the economic production of beef, milk, mutton, and pork are given consideration.

Students obtain practical experience in the judging of the various breeds and classes of animals by visits to neighboring farms.

The course in Milk Hygiene will be given by lectures and demonstrations throughout the third year. The students will be taught the theory of milk secretion, the composition and characteristics of milk, the various methods of testing, together with the chemistry and bacteriology of milk, abnormal forms of milk, and diseases transmissible through milk to bovines and humans, with a study of the epidemics produced. Sanitary stabling and the sanitary handling of milk will be considered, showing the construction of various types of dairy barns and dairy houses, the manner of milking, care of the milk, and the varieties and care of dairy utensils; also a study of sterilization and pasteurization.

TEXT-BOOKS: Plumb's Types and Breeds of Farm Animals; Pearson's translation of Jensen's Essentials of Milk Hygiene; Henry's Feeds and Feeding.

VETERINARY ZOOLOGY AND PARASITOLOGY.

HARRY WEBSTER GRAYBILL, M.S., B.A., D.V.M.....Professor

This course will embrace Zoology and the various parasites with which the various domestic animals are infested. Instruction as to prevention, eradication, and the treatment of the diseases caused by them will be given.

TEXT-BOOK: Neuman, Animal Parasites.

VETERINARY OBSTETRICS.

HULBERT YOUNG, V.M.D.....Assistant Professor

The course of instruction will consist of lectures on obstetrical anatomy, foetal development, presentations, and the diseases incidental to the periods of gestation and parturition.

The lectures will be illustrated by diagrams, models, natural preparations, and other appliances for demonstrating the principles taught.

TEXT-BOOK: Fleming, Dalrymple.

HORSESHOEING.

HULBERT YOUNG, V.M.D.....Lecturer

The course is intended to familiarize students with the principles of shoeing, the examination of the feet and proper use of special shoes for relief of defects or disease.

TEXT-BOOK: Lungwitz on Horseshoeing, Adams' translation.

MILITARY PRACTICE.

HERBERT S. WILLIAMS, V.M.D.,
Clinical Instructor in Veterinary Military Practice
(U. S. Army, Fort Meyer, Va.)

This course consists of lectures and demonstrations on purely military veterinary subjects, and is given at Fort Meyer, Va., the cavalry and artillery post near Washington, D. C.

The subjects of saddling, biting, and draft, together with the study of the proper conformation of animals used for military purposes, are included in this set of lectures.

The control of contagious diseases in army animals is also given special consideration.

VETERINARY JURISPRUDENCE.

WILLIAM W. BRIDE, A.B., LL.B.....Lecturer

A series of lectures upon the Law of Animals, including suggestions relating to the conduct of veterinarians as experts in the trial of cases involving the above law.

In addition to the foregoing courses of lectures, a number of Government experts have been engaged to give lectures on subjects of special interest to the veterinarian.

EXAMINATIONS AND DEGREE.

Examinations are held at the end of the course in each subject. Students failing in examinations will be permitted to be reexamined at the next regular examination period. Students will not be admitted to examination unless they have paid all fees due at the time or present a permit signed by the Dean. In order to avail themselves of the privilege of reexamination, students must file their written applications with the Dean not later than fifteen days before the date set for the examinations.

Proficiency is marked upon a scale of 100. A grade of 65 is required to pass an examination.

If a satisfactory examination is passed, the student receives the Degree of Doctor of Veterinary Medicine (D.V.M.).

THE VETERINARY LIBRARY.

This library is located in the Administration Building of the College of Veterinary Medicine, and is open from 8 a. m. to 10 p. m.

It contains, in addition to volumes on veterinary medical subjects, the current veterinary journals.

Provision is made in the annual library fee charged every student to add to it as published the important new works on veterinary medicine.

OTHER LIBRARIES.

Washington contains the Library of the Surgeon General's Office of the United States Army, the most complete medical library in the world. This library, as all other libraries of the Government, is open to the public between the hours of 9 a. m. and 4.30 p. m. There is also the Library of Congress and the many excellent libraries of the various other Government offices, in addition to the University Medical Library.

FEES AND CONTINGENT EXPENSES.

1. Matriculation fee (payable only on first entry into the University)	\$5
2. Library fee per annum.....	3
3. Tuition fee per annum	100
4. Fee for graduation	10

A deposit of \$5 per annum is required of every student to cover loss, breakage, or damage to the property of the school. The amount of such deposit paid in excess of the breakage will be returned.

No change will be made in the fees fixed at registration except in case of withdrawal, and then only upon notice in due form, and from the end of the current quarter-session, when such withdrawal shall be approved. Applications for the granting of a withdrawal should be made on the prescribed form to be obtained from the Secretary, and will be received at the end of a quarter session.

Students are urged to purchase their own microscopes, but those who do not care to do so may rent them from the University at the following rates:

Microscope for Histological Laboratory use.....	\$5
Microscope for Bacteriological, Pathological, and Clinical Microscopy Laboratory use.....	6

PAYMENT OF FEES.

All fees are to be paid to the clerk. Tuition fees are payable quarterly, in advance. Matriculation, library, and laboratory fees are payable in full, in advance.

For further information apply to

DAVID E. BUCKINGHAM, *Dean,*
The George Washington University,
College of Veterinary Medicine,
Washington, D. C.

Nos. 2113-2115 Fourteenth St. N. W.

PART IV
STUDENTS IN THE UNIVERSITY
DEGREES CONFERRED, MISCELLANEA

(199)

STUDENTS REGISTERED IN THE UNIVERSITY. 1911-1912.

DEPARTMENT OF ARTS AND SCIENCES

SCHOOL OF GRADUATE STUDIES.

IN ATTENDANCE.

Name.	Legal residence.	City address.
Bays, William Webb.....	D. C.....	1343 Clifton Street.
<i>Topic—Economics.</i>		
Deviny, Michael Ambrose.....	D. C.....	704 14th Street, N. E.
B. S., 1910, St. John's College (D. C.)		
<i>Topics—Chemistry, Mathematics, Physics.</i>		
Meyer, Will Beck.....	D. C.....	609 P Street.
B.S. in Chemistry, 1910, The George Washington University.		
<i>Topic—Bacteriology</i>		
Starbecker, Moses.....	N. Y.....	1104 5th Street.
B.S., 1910, College of the City of New York.		
<i>Topic—Chemistry</i>		
Welsh, Luther.....	Mo.....	Army and Navy Club.
Graduate, 1909, United States Naval Academy.		
<i>Topics—Chemistry, Physics.</i>		
Wilkinson, Theodore Stark Jr....	D. C.....	2000 R Street.
Graduate, 1909, United States Naval Academy.		
<i>Topics—Chemistry, Mathematics, Physics.</i>		

CIVIL ENGINEER.

Ball, William Curtis Cooley.....	Md.....	824 6th Street, S. W.
Dougherty, Howard Francis.....	Md.....	824 13th Street.
Moore, Lacy.....	N. C.....	1502 Vermont Avenue.
B.S., 1906, College of Agriculture and Mechanic Arts, N. C.		
Veihmeyer, Frank.....	D. C.....	1518 S Street.

ELECTRICAL ENGINEER.

Munroe, Russell Barker.....	D. C.....	2115 S Street.
B.S., 1911, University of Pennsylvania.		
Wiegand, Henry Frank.....	D. C.....	824 6th Street S. W.
B.S. in E.E., 1911, The George Washington University.		

MECHANICAL ENGINEER.

Name.	Legal residence.	City address.
Carty, Roy Franklin.....	D. C.....	1234 Harvard Street.
B.S. in M.E., 1911, The George Washington University.		
Miller, Elton Willard.....	Cal.....	1438 Meridian Place.
B.S. in M. E., 1908, The George Washington University.		

MASTER OF SCIENCE.

Castleman, Philip.....	Mass.....	1232 14th Street.
B.S., 1906, Harvard University.		
M.D., 1911, The George Washington University.		
Topics—Major, Chemistry; Minors, Preventive Medicine, Neurology.		
Finkelstein, Rueben.....	D. C.....	616 M Street.
A.B., 1911, The George Washington University.		
Topics—Major, Applied Mathematics; Minors, Physics, Education.		
Ingersoll, Edwin Henry.....	D. C.....	Bu. A. I., Dept. of Agr.
B.S., 1911, The George Washington University.		
Topics—Major, Chemistry. Minors, Chemistry, Bacteriology.		
McLeran, John David.....	D. C.....	401 M Street, N. E.
B.A., 1896, The Iuka Normal Institute.		
M.A., 1903, Southern Normal University.		
Topics—Major, Chemistry; Minors, English, History.		
Marsh, Allen Johnson.....	D. C.....	628 E Street, N. E.
B.S., 1910, The George Washington University.		
Topics—Major, Chemistry; Minors, Bacteriology, Geology.		
Miller, Harry McClure.....	Ky.....	25th and E Streets.
Topics—Major, Chemistry; Minors, Bacteriology, Zoology.		
Norton, Raymond Pratt.....	Maine.....	1311 K Street.
B.S., 1910, University of Maine.		
Topics—Major, Chemistry. Minors, Chemistry, Bacteriology.		
Schmied, James William.....	Ohio.....	943 O Street.
B.S., 1910, Ohio Northern University.		
Topics—Major, Chemistry, Minors, Chemistry, Mathematics.		
Valaer, Peter, Jr.....	N. C.....	421 P Street.
B.S., 1906, College of Agriculture and Mechanic Arts, N. C.		
Topics—Major, Chemistry; Minors, Bacteriology, Microscopy.		

MASTER OF ARTS.

Barnes, Charles Maurice.....	Va.....	Census Bureau.
A.B., 1910, The George Washington University.		
Topics—Major, Economics; Minors, Sociology, History.		
Bevard, Katherine Harper.....	D. C.....	1423 R Street.
A.B., 1911, The George Washington University.		
Topics—Major, Education; Minors, Education, History.		
Bradshaw, May Paul.....	D. C.....	901 C Street, N. E.
A.B., 1909, The George Washington University.		
Topics—Major, History; Minors, English, Economics.		
Hancock, Walter Edgar.....	Texas.....	Takoma Park, D. C.
Topics—Major, History; Minors History, English.		

Name.	Legal residence.	City address.
Haycock, Robert Lee.....	D. C.....	2525 Wisconsin Avenue.
A.B., 1911, The George Washington University.		
Topics—Major, Education; Minors, History, Sociology.		
Judd, Neil Merton.....	Utah.....	New National Museum.
A.B., 1911, University of Utah.		
Topics—Major, Classical Archaeology; Minors, American Archaeology, Geology.		
Lampson, Lawrence Vincent.....	Ohio.....	1336 Otis Place.
A.B., 1906, Oberlin College.		
Topics—Major, Political Science; Minors, English, Education.		
Lowe, Edith Blinston.....	D. C.....	2622 Woodley Place.
A.B., 1911, The George Washington University.		
Topics—Major, English; Minors, History, German.		
Magnusson, Leifur.....	Minn.....	118 3rd Street, N. E.
A.B., 1905, University of Minnesota.		
Topics—Major, Economics; Minors, Sociology, History.		
Maréchal, Greer McInnis.....	Ala.....	War Department.
A.B., 1908 University of Alabama.		
Topics—Major, Chemistry; Minors, Physics, French.		
Maret, Jeanne.....	France.....	1225 L Street.
A.B., 1910, The George Washington University.		
Topics—Major, French; Minors, German, English.		
Pyles, Henry Miloon.....	W. Va.....	The Adrmore.
B.S., 1911, Dixon College.		
Topics—Major, Education; Minors, Philosophy, History.		
Rankin, John Owen.....	D. C.....	1736 G Street.
A.B., 1904, Tarkio College.		
Topics—Major, Economics; Minors, Political Science, International Law and Diplomacy.		
Rizer, Ruth.....	D. C.....	2568 University Place.
A. B., 1907, University of Michigan.		
Topics—Major, History; Minors, English, French.		
Schwartz, Claus Johann.....	Germany....	3526 11th Street.
A.B., 1908, The George Washington University.		
Topics—Major, German; Minors, French, Education.		
Scott, Mabel Lavinia.....	D. C.....	1455 Girard Street.
A.B., 1907, The George Washington University.		
Topics—Major, English; Minors, German, History.		
Walker, Bertha Florine.....	D. C.....	420 B Street, N. E.
A.B., 1911, The George Washington University.		
Topics—Major, English; Minors, History, Zoology.		
Wheeler, Harold Leslie.....	Mass.....	1824 California Street.
A.B., 1910, Brown University.		
Topics—Major, English; Minors, French History.		

DOCTOR OF PHILOSOPHY.

Name.	Legal residence.	City address.
*Alden, Levi Russell.....	D. C.....	809 L Street.
A.B., 1903, A.M., 1904, The George Washington University.		
I.L.B., 1906, The George Washington University.		
<i>Topics</i> —Major, History; Minors, Law, History.		
Bates, Carleton.....	Mass.....	1628 Columbia Road.
B.S., 1908, Massachusetts Agricultural College.		
B.S., 1908, Boston University.		
<i>Topics</i> —Major, Bacteriology; Minors, Chemistry, German.		
Broomell, Arthur Williams.....	Md.....	Bu. of Chem., Dept. of Ag.
A.B., 1906, Swarthmore College.		
<i>Topics</i> —Major, Chemistry; Minors, Chemistry, Microscopy.		
Buhrer, James D.....	D. C.....	1722 13th Street.
A.B., 1889, Calvin College.		
B.D., 1892, Heidelberg Theological Seminary.		
<i>Topics</i> —Major, Psychology; Minors, Philosophy, Sociology.		
Cook, John.....	N. J.....	Y. M. C. A.
M.E., 1911, Stevens Institute of Technology.		
<i>Topics</i> —Chemistry; Minors, Physics, Electrical Engineering.		
Custis, Horace Hatch.....	D. C.....	The Iroquois.
A.B., 1906, Johns Hopkins University.		
A.M., 1908, The George Washington University.		
<i>Topics</i> —Majors, Chemistry; Minors, Chemistry, Bacteriology.		
Devitt, George Raywood.....	D. C.....	2329 N Street.
B.A., 1882, University of New Brunswick, Canada.		
<i>Topics</i> —Major, Education; Minors, Education, Psychology.		
Donk, Marion Gilbert.....	Fla.....	The Brunswick.
A.B., 1898, Florida Agricultural and Mechanical College.		
A.B., 1901, Harvard University.		
B.S. in C.E., 1910, The George Washington University.		
<i>Topics</i> —Major, Chemistry; Minors, Mechanical Engineering, Bacteriology.		
Doyle, Aida Mary.....	Pa.....	1359 Park Road.
B.S., 1908, The George Washington University.		
<i>Topics</i> —Major, Chemistry; Minors, Chemistry, Microscopy.		
Feigenbaum, William Morris....	N. Y.....	520 E Street, N. E.
A.B., 1907, A.M., 1908, Columbia University.		
<i>Topics</i> —Major, History; Minors, History, Sociology.		
Hall, Maurice Crowther.....	D. C.....	Bu. A. I., Agr. Dept.
B.S., 1905, Colorado College.		
M.A., 1906, University of Nebraska.		
<i>Topics</i> —Major, Zoology; Minors, Zoology, Pathology.		

*Thesis requirement not completed.

- | Name. | Legal residence. | City address. |
|---|------------------|--|
| Huddle, John Thomas..... | D. C..... | 738 11th Street. |
| A.B., 1891, A.M., 1896, Roanoke College. | | |
| <i>Topics</i> —Major, Philosophy; Minors, Psychology, English. | | |
| Hyde, William Albert..... | Conn..... | 2814 13th Street. |
| Ph.B., 1901, Yale University. | | |
| <i>Topics</i> —Major, Physics; Minors, Mathematics, Chemistry. | | |
| B.A., 1904, Milton College. | | |
| Jackson Hartley Harrad
Thompson | D. C. | 1326 Euclid Street. |
| A.M., 1909, University of Wisconsin. | | |
| <i>Topics</i> —Major, Zoology; Minors, Zoology, Psychology. | | |
| Jenks, Clayton Louis..... | D. C..... | 3020 Macomb Street. |
| A.B., 1906, M.S., 1909, Hamilton College. | | |
| <i>Topics</i> —Major, Chemistry; Minors, Physics, Electrical Engineering. | | |
| Kibler, Alton Lewin..... | Va..... | 1715 35th Street. |
| A.B., 1904, Randolph Macon College. | | |
| M.S., 1909, The George Washington University. | | |
| <i>Topics</i> —Major, Chemistry; Minors, Chemistry, Bacteriology. | | |
| Kibler, Thomas Latimer..... | Va..... | 1715 35th Street. |
| A.B., 1904, Randolph Macon College. | | |
| M.A., 1908, The George Washington University. | | |
| <i>Topics</i> —Major, Economics; Minors, History, Sociology. | | |
| Lane, Charles Homer..... | Md..... | Dept. of Agriculture. |
| B.A., 1903, A.M., 1905, Mount Allison University. | | |
| B.A., 1904, Harvard University. | | |
| B.S.A., 1909, University of Tennessee. | | |
| <i>Topics</i> —Major, Education; Minors, Education, Philosophy. | | |
| Lathrop, Elbert Clyde..... | Mich.... | Bureau of Soils, Dept. of
Agriculture |
| A.B., 1907, DePauw University. | | |
| <i>Topics</i> —Major, Chemistry; Minors, Bacteriology, Geology. | | |
| *McCaughey, William John..... | Pa..... | Ohio State University. |
| B.S., 1906, University of Pennsylvania. | | |
| <i>Topics</i> —Major, Mineralogy; Minors, Geology, Chemistry. | | |
| *Marshall, Elmer Eugene..... | D. C..... | 1630 Caroline Street,
Baltimore, Md. |
| A.B., 1889, Ohio Wesleyan University. | | |
| S.T.B., 1894, Boston University | | |
| <i>Topics</i> —Major, History; Minors, Philosophy, Semitics. | | |
| Morehouse, Alanson David..... | D. C..... | 1526 O Street. |
| M.E., 1893, Cornell University. | | |
| <i>Topics</i> —Major, Engineering; Minors, Economics, Meteorology. | | |
| Morse, Elisha Wilson..... | D. C..... | 1723 Willard Street. |
| B.A.S., 1897, Harvard University. | | |
| <i>Topics</i> —Major, Zoology, Minors; History, Economics. | | |

*Thesis requirement not completed.

Name.	Legal residence.	City address.
Paine, Howard Sheperd.....	Ohio.....	1438 Meridian Place.
A.B., 1902, Ohio University.		
Topics—Major, Chemistry; Minors, Chemistry, Physics.		
Plass, Joseph.....	Germany....	225 H Street.
A.B., 1910, A.M., 1911, The George Washington University.		
Topics—Major, History; Minors, History, German.		
Roark, Ruric Creegan.....	Ky.....	Bureau of Chemistry.
P.A., 1907, University of Cincinnati.		
M.A., 1908, University of Illinois.		
Topics—Major, Chemistry; Minors, Bacteriology, Pharmacology.		
Schwartz, Claus Johann.....	Germany....	3526 11th Street.
B.A., 1908, The George Washington University.		
Topics—Major, German; Minors, French, Education.		
*Smith, John William.....	D. C.....	417 Laurens Street, Baltimore, Md.
A.B., 1901, Randolph Macon College.		
Topics—Major, Philosophy; Minors, History, Semitics.		
Swett, Otis Dow.....	Md.....	Chevy Chase, Md.
L.L.B., 1891, L.L.M., 1892, B.S., 1904, Columbian University.		
M.S., 1909, The George Washington University.		
Topics—Majors, Chemistry; Minors, Chemistry, Bacteriology.		
Symons, Thomas Baddeby.....	Md.....	College Park, Md.
B.S., 1902, M.S., 1904, Maryland Agricultural College.		
Topics—Major, Zoology; Minors, Zoology, Botany.		
Thomas, James Shelby.....	D. C.....	Rm. 408 Southern Bldg.
A.B., 1900, A.M., 1903, Milliken College.		
Topics—Major, Education; Minors, Political Science, History.		
Townsend, Chas. Henry Tyler... D. C. . . .	Puira, Peru.	
B.S., 1908, The George Washington University.		
Topics—Major, Zoology; Minors, Geology, Botany.		
Truesdell, Leon Edgar.....	Vt.....	1330 10th Street.
A.B., 1907, A.M., 1907, Brown University.		
Topics—Major, Philosophy; Minors, Sociology, English.		
*Young, J. Elektra Ludlow.....	France.....	Nat. Cathedral School.
B.A., 1906, Columbia University.		
M.A., 1909, The George Washington University.		
Topics—Major, Greek; Minors, Latin, Archaeology.		
*Zerhusen, Francis Xavier.....	Ky.....	St. Joseph's College, Cincinnati, Ohio.
A.B., 1906, Notre Dame University.		
Topics—Major, German; Minors, German, History.		
Zimmer, Johanna.....	Md.....	Frederick, Md.
B.L., 1902, M.L., 1903, Syracuse University.		
Topics—Major, Philosophy; Minors, German, English.		

*Thesis requirement not completed.

THE COLLEGES.

The following list includes all undergraduate students. The registration is indicated by the abbreviations: A. & S., Columbian College; Eng., for College of Engineering and Mechanic Arts; C. P. S., for College of Political Sciences; T. C., for Teachers College. The letters c., e., m., and a., after the abbreviation Eng., indicate that the student is a candidate for the bachelor's degree in Civil, Electrical, or Mechanical Engineering, or in Architecture; the absence of these letters indicates a special student.

Name.	Legal residence.	City address.
Alden, Anna Grace, T.C.....	D. C.....	809 I. Street.
Allanson, Henry Emil, A.&S....	Iowa.....	601 Y. M. C. A.
Allen, Cornelia Morgan, T.C.....	D. C.....	1627 Lamont Street.
Altizer, Posey John, C.P.S.....	Va.....	941 H Street.
LL.B., 1907, The George Washington University.		
Altman, Stanley B., A.&S.....	D. C.....	1826 G Street.
Anders, Walter Lesesne, A.&S....	Texas.....	915 H Street.
Anderson, Hans Wilhelm		
Ferdinand, A.&S.....	Germany....	1435 Massachusetts Ave.
Anderson, Henry Melville,		
A.&S	D. C.....	3030 R Street.
Anderson, Vernon David, Eng....	Utah.....	1100 Vermont Avenue.
Anderton, Lynda Fairfax, T.C....	Va.....	East Falls Church, Va.
Applebaum, Aaron L., Eng.....	N. J.....	1214 6th Street.
Appleby, Charline Elizabeth,		
A.&S	Ind.....	1510 P Street.
Appleby, Wilmer Conrad, A.&S....	D. C.....	1510 P Street.
Argo, Reamer Wilkes, Eng.m....	Md.....	1306 O Street.
Armes, Jessie, A.&S.....	D. C.....	1607 Irving Street.
Arnold, John Knox, C.P.S.....	Ky.....	2532 14th Street.
A.B., 1911, M. Dip., 1911, The George Washington University.		
Arnold, Virginia Josephine,		
T.C	D. C.....	1824 Newton Street.
Avers, Henry Godfrey, A.&S....	Ohio.....	8 Fourth Street, S. E.
Ayler, Ruth Leah, A.&S.....	D. C.....	244 Fourth Street, S. E.
Bacon, Charles B., Eng.....	Minn.....	C/o Bu. of Chemistry.
Ball, William Curtis Cooley,		
Eng.c	Del.....	824 6th Street, S. W.
Balloch, Agnes McGrew, A.&S....	D. C.....	1511 Rhode Island Ave.
Barb, Thomas Virgil, C.P.S.....	D. C.....	701 Munsey Bldg.
Barber, Charles Wightman,		
Eng.c	D. C.....	412 South Capitol Street.

Name.	Legal residence.	City address.
Bartholomew, Don Carlos, A.&S	Ohio.....	Vienna, Va.
Bashford, Margaret Josepha, T.C	Va.....	R. F. D. No. 2, Alexandria, Va.
Bast, Lucy Athelia, T.C.....	Mich.....	201 6th Street, N. E.
Baston, George Henry, A.&S....	Maine.....	Bureau of Chemistry.
Batt, Joseph Harper, A.&S.....	Del.....	1433 L Street.
Bayly, Howard Paul, Eng.c.....	D. C.....	1333 11th Street.
Bays, William Webb, C.P.S.....	N. C.....	1343 Clifton Street.
A.B., 1904, Washington and Lee University.		
Beaman, Nelson Barry, C.P.S....	Mich.....	1933 Calvert Street.
Beaton, Octavia S., A.&S.....	N. Y.....	Hotel Hamilton.
Beauchamp, Edward Lassell, A.&S	D. C.....	3500 U Street.
Beekly, Albert Leon, A.&S.....	Neb.....	425 Y. M. C. A.
Beller, Elizabeth Caroline, T.C....	D. C.....	235 First Street, N. E.
Beneman, Harry Gustavus, A.&S	D. C.....	904 Westminster Street.
Benton, Ralph Webster, A.&S....	D. C.....	462 O Street.
Berger, Carey Kingsbury, A.&S....	Iowa.....	Y. M. C. A.
Berry, Louise, T.C.....	D. C.....	1919 K Street.
Bingham, Miles Franklin, C.P.S	Ohio.....	The Cumberland.
Bisset, David A., A.&S.....	D. C.....	3301 Lowell Street.
Bizzell, Carey, A.&S.....	D. C.....	The Burlington.
Bizzell, James Eustace, A.&S....	D. C.....	The Burlington.
Black, James Earl, A.&S.....	N. Y.....	1225 O Street.
Blackburn, Mary St.Clair, A.&S	D. C.....	3313 17th Street.
Blackley, Robert Bassett, C.P.S....	D. C.....	1412 Mass. Avenue.
Blandford, Hannah McLean, T.C	Md.....	220 8th Street, S. W.
Bontz, Mary Ellen, T.C.....	Va.....	422 N. Alfred Street. Alexandria, Va.
Bortman, Isaac Maurice, A.&S....	Pa.....	1476 Clifton Street.
Bouldin, Ellen Barksdale, T.C....	Va.....	1321 M Street.
Boutell, Hugh Gates, Eng.m.....	Ill.....	1724 Lamont Street.
Boutell, Roger Sherman Gates A.&S	D. C.....	1724 Lamont Street.
Bowen, Norris Loring, C.P.S....	Va.....	Clarendon, Va.
Bradburn, Adeline May, A.&S....	D. C.....	138 11th Street, S. E.
Bradfield, Elizabeth, A.&S.....	D. C.....	Mt. St. Alban.
Brady, Johnson Camden, Eng....	W. Va.....	2435 18th Street.
Brakhagen, Minnie Hulda, A.&S	D. C.....	634 New York Avenue.

Name.	Legal residence.	City address.
Brame, Arthur Hervey, Eng.e....	D. C.....	1217 O Street.
Brand, Albert Arnold, Eng.e....	Ind.....	2139 Pa. Avenue.
Breneman, Claude Royal, A.&S....	D. C.....	910 M Street.
Breuninger, Henry L., Eng.m....	D. C.....	3208 19th Street.
Brewer, Elim Gilmore, A.&S....	D. C.....	608 Mass. Avenue.
Brigham, Gertrude R., A.&S....	D. C.....	1119 17th Street.
Britton, Anna Louise, A.&S....	N. H.....	634 Rock Creek Church Road.
Brock, Walter Burritt, A.&S....	D. C.....	229 Mass. Avenue, N. E.
Brockwell, John F., A.&S....	N. C.....	1259 Morse Street, N. E.
Brooke, Lloyd A., Eng.....	D. C.....	3524 10th Street.
Brown, Alvin McCreary, A.&S....	D. C.....	Kenilworth, D. C.
Brown, Mary, T.C.....	D. C.....	2464 Ontario Road.
Brown, Margaret Cabell, A.&S....	Brazil.....	1756 Q Street.
Browne, Gertrude Veronica, T.C.....	D. C.....	1121 Girard Street.
Buchanan, Omar Baily, Eng.e....	D. C.....	502 M Street.
Bull, Wilfrid Douglas, C.P.S....	Cal.....	1627 19th Street.
Bullion, Clarence L., Eng.....	Ohio.....	4434 Kansas Avenue.
Bullough, George Van Ness, A.&S.....	D. C.....	122 Tennessee Avenue.
Bundick, Clarence Albert, Eng.c....	D. C.....	716 12th Street, N. E.
Burchard, Edwin Day, Eng.c....	D. C.....	1113 S Street.
Burden, Katherine, A.&S....	D. C.....	1237 Crittenden Street.
Burdette, Walter Washington, A.&S.....	Va.....	R. F. F. No. 4, Washington, D. C.
Burke, Ellen Teresa, A.&S....	D. C.....	531 Jefferson Street, Brightwood Park, D. C.
Burnett, Lyle Black, A.&S....	Mo.....	2224 F Street.
Burns, John C., A.&S....	Pa.....	1129 New Hampshire Avenue.
Burritt, Alice, A.&S....	D. C.....	The Cliffbourne.
Burrows, Tremaine K., C.P.S....	N. J.....	2323 Ontario Road.
Burt, Edwin Caleb, A.&S....	D. C.....	1102 Vermont Avenue.
Bushnell, Paul, C.P.S....	D. C.....	1757 Church Street.
Butler, Bessie M., A.&S....	D. C.....	1467 Irving Street.
Cade, W. Roscoe, A.&S....	Ohio.....	1820 15th Street.
Caemmerer, Johannes P., A.&S....	Wis.....	925 L Street.
Callahan, Morgan B., C.P.S....	Md.....	1003 F Street.
Callister, Edward Richard, A.&S.....	Utah.....	53. Ventosa Apts.
Cam, Helen Elizabeth, T.C.....	Ill.....	58 T Street.
Campbell, Arthur B., Eng.c....	Mo.....	24 Rhode Island Avenue, N. E.

Name.	Legal residence.	City address.
Campbell, Orland, A.&S.....	D. C.....	1343 Harvard Street.
Cannon, William Joseph, Eng....	N. Y.....	1305 22nd Street.
Carpenter, Lillian Evans, T.C....	D. C.....	205 D Street. N. E.
Carr, Kate Edna, T.C.....	D. C.....	1833 North Capitol St.
Carter, Francis Edward, A.&S....	Va.....	Episcopal High Schoo.
Cash, Edith Katherine, A.&S....	D. C.....	126 Tenn. Ave. N. E.
Chapin, Mabel Louise, A.&S.....	D. C.....	519 Stanton Place, N. E.
Chapman, John Holbrook,		
Eng.m	D. C.....	3323 Wisconsin Avenue.
Chase, Harry Guy, Eng.e.....	D. C.....	320 Maryland Ave., N. E.
Cheek, Paul Tinsley, A.&S.....	D. C.....	2009 F Street.
Cheney, Edith, A.&S.....	D. C.....	816 Taylor Street.
Chiao, Su-ying, A.&S.....	China.....	1302 Park Road.
Chowning, James William, Eng....	Mo.....	1508 13th Street.
Chubb, Herman Blaney, C.P.S....	D. C.....	No. 5, The Lenox.
Church, Grace Ella, A.&S.....	D. C.....	626 North Carolina Ave.
B.S., 1908, Beloit College.		
Cissel, John Floyd, C.P.S.....	Md.....	1843 Vernon Street.
Clark, Bennett Champ, A.&S....	Mo.....	1509 16th Street.
Clark, Howard, A.&S.....	Ohio.....	U. S. Geological Survey.
Clark, Marion, A.&S.....	Md.....	1321 N Street.
B.A., 1901, M.A., 1903, Western Maryland College.		
Claveloux, Frank, A.&S.....	D. C.....	2000 North Capitol St.
Cobb, Margaret V., T.C.....	Va.....	Falls Church, Va.
B.A., 1910, Radcliffe College.		
Cochrane, John Edward		
Walker, Eng.c.....	Mass.....	1414 K Street.
Cockrell, Selwyn Kennedy,		
A.&S	Md.....	1050 W. Fayette St., Baltimore, Md.
Coe, Mayne R., A.&S.....	D. C.....	2947 Mills Ave., N. E., Langdon, D. C.
Cohen, George Grauman, C.P.S....	Ind.....	211 C Street.
A.B., 1907, LL.B., 1907, University of Indiana.		
Cohen, Maurice, C.P.S.....	D. C.....	408 26th Street.
Cohen, Ralph, A.&S.....	Russia.....	2016 1st Street.
Cole, Winthrop Ritchie, C.P.S....	Mass.....	1916 Biltmore Street.
Collins, William Moore, A.&S....	D. C.....	1417 G Street, N. E.
Connelly, Mary Ann, T.C.....	D. C.....	1438 S Street.
Connor, Daniel Allman, Eng.c....	D. C.....	130 D Street, S. E.
Copeland, Leland Stanford,		
A.&S	Mo.....	1114 Euclid Street.
Coppinger, Conor, C.P.S.....	D. C.....	820 18th Street.
Corbett, Ella Loretto, T.C.....	D. C.....	1411 Harvard Street.

Name.	Legal residence.	City address.
Corkran, Clarence H., A.&S....	Md.....	Congress Heights, D. C.
Coulon, Eugene Enet, C.P.S.....	La.....	918 18th Street.
Coulson, Margaret Holmes, A.&S	D. C.....	1657 31st Street.
Coumbe, Edward Celestine, A.&S	Wash.....	1502 Vermont Avenue.
Council, Kinchen Kea, A.&S.....	Ga.....	1902 G Street.
Cox, Carrie, A.&S.....	Ohio.....	312 Delaware Ave., N. E.
Crabtree, John H., C.P.S.....	Okla.....	Bu. of Corporations.
Crain, Newel Berryman, A.&S....	Texas.....	326 D Street, N. E.
Croswell, Frances Matilda, T.C....	D. C.....	910 Virginia Ave., S. W.
Crowe, John Joseph, A.&S.....	D. C.....	Bureau of Standards.
Crown, James Edmund, Eng.m....	D. C.....	727 5th Street, N. E.
Cullen, Stella Cecilia, T.C.....	D. C.....	1132 Columbia Road.
Dans, Jose P., Eng.C.....	P. I.....	The Ardmore.
Darcey, Maude Louisa, A.&S....	D. C.....	1248 31st Street.
Davison, Ruth Low, T.C.....	D. C.....	1787 Columbia Road.
Decker, Cora E., A.&S.....	D. C.....	1316 30th Street.
Dagenhardt, George Albert, Eng.c	Pa.....	911 23rd Street.
Degnan, George A., Eng.m.....	Pa.....	450 M Street.
Dempsey, Mary Veronica, A.&S	N. Y.....	1716 M Street.
Denison, Harriet Alberta, A.&S	D. C.....	929 P Street.
Deysher, Edgar F., A.&S.....	N. J.....	1416 A Street, N. E.
Dickey, Philena A., A.&S.....	D. C.....	912 P Street.
Dodge, Moncena Miles, A.&S....	Calif.....	933 H Street.
Dollins, Hugh David, Eng.....	D. C.....	1222 11th Street.
Dolliver, Garrett Brown, A.&S...	S. D.....	Y. M. C. A.
Donk, Peter J., A.&S.....	D. C.....	No. 37, The Brunswick.
Dougherty, Howard Francis, Eng.c	Md.....	824 13th Street.
Douglass, Marguerite, A.&S.....	D. C.....	323 Maryland Ave. N. E.
Dove, Beulah Augusta, T.C.....	Md.....	Rockville, Md.
Draper, Anne Elizabeth, A.&S...	N. Y.....	1503 12th Street.
Dulin, William Shelton Gordon, Eng.c.....	D. C.....	1420 Pa. Avenue.
Dunbar, Ralph McNeal, A.&S....	Md.....	Y. M. C. A.
Dutton, Donald Langley, Eng.c...	D. C.....	1306 O Street.
Dwyer, John Rochford, Eng.c...	D. C.....	628 F Street, S. W.
Earl, Charles Merritt, A.&S.....	Wls.....	5th St., Congress H'ghts.

Name.	Legal residence.	City address.
Earll, Donald Montgomery,		
A.&S	Md.....	Chevy Chase, Md.
Eatherly, Walter Scott, A.&S.....	Tenn.....	910 19th Street.
Ebaugh, Ruth Mary, A.&S.....	Mo.....	1343 Irving Street.
Eiker, Mattie, A.&S.....	D. C.....	1006 Otis Place.
Eisenhart, Sophie Helen, A.&S....	Mich.....	The Cairo.
Eldridge, Hattie Dayton, T.C....	N. C.....	1627 Lamont Street.
Elias, Harold L., A.&S.....	S. C.....	910 15th Street.
Ellwood, William Adam, Eng.c....	N. Y.....	635 F Street, N. E.
Embry, John A., C.P.S.....	Fla.....	Dept. of Justice.
Engel, Abraham, A.&S.....	N. Y.....	306 G Street, N. E.
Engel, Morris Edward, Eng.m....	Pa.....	1016 South Carolina Avenue, S. E.
Enger, Melvin Cornelius, A.&S....	Minn.....	1225 11th Street.
Entler, Marguerite Hendrick-		
son, A.&S.....	Ore.....	The Wellington.
Evans, Florence Elizabeth,		
A.&S	Ohio.....	808 1st Street.
Evans, Helen Marie, T.C.....	D. C.....	1348 Euclid Street.
A.B., 1908, The George Washington University.		
Everett, John Rid den, T.C.....	Minn.....	U. S. Weather Bureau.
Ewing, Paul Albert, A.&S.....	Nebr.....	300 East Capitol Street.
Fant, Jessie DuBois, T.C.....	Utah.....	115 12th Street, S. E.
Farmer, James Price, A.&S.....	D. C.....	154 A Street, N. E.
Faunce, Mary E., A.&S.....	D. C.....	317 11th Street, S. W.
Feigenbaum, Henry Clemence,		
C.P.S	N. Y.....	520 E Street, N. E.
Feldman, Abraham, A.&S.....	Russia.....	805 4th Street, S. E.
Ferguson, Elizabeth, T.C.....	D. C.....	1239 Kenyon Street.
Ferguson, Marion Frances,		
A.&S	D. C.....	1239 Kenyon Street.
Fickas, Melville Philip, A.&S....	Ariz.....	1311 13th Street.
Finch, Elmer Harrison, Eng.c....	D. C.....	1211 Q Street.
Finkel, Henry Charles, C.P.S....	D. C.....	Bond Building.
I.L.B., 1904, The George Washington University.		
Fisher, Lewis Civile, C.P.S.....	D. C.....	The Imperial.
Fleming, John Paton, A.&S....	Va.....	1861 Wyoming Avenue.
Fletcher, Charles Cloyes, A.&S....	N. Y.....	1430 Meridian Place.
M.D., National Medical School.		
Foo, Hsen Shuen, C.P.S.....	China.....	Chinese Legation.
A.B., 1906, Chang-Chang College, China.		
I.L.B., 1911, The George Washington University.		
Ford, Tod, Jr., C.P.S.....	Calif.....	The Brighton.
Foster, LeRoy B., A.&S.....	Ohio.....	1502 Vermont Avenue.
Francis, Grace, A.&S.....	Ala.....	1732 Willard Street.

Name.	Legal residence.	City address.
Frazier, Elmer Sefton, C.P.S....	D. C.....	125 S Street.
Frey, Ralph Wylie, A.&S.....	D. C.....	1343 Q Street.
Frizzell, Genevieve Margaret, T.C.....	D. C.....	241 8th Street, N. E.
Gabriel, Henry, C.P.S.....	Ohio.....	1224 13th Street.
Gahn, Henrik Colquhoun, A.&S....	D. C.....	3145 Mt. Pleasant Street.
Galbraith, Esther Elizabeth, A.&S.....	Pa.....	3006 11th Street.
Gass, Charles Benjamin, A.&S....	Md.....	1302 R Street.
Gauss, John James, C.P.S.....	D. C.....	411 K Street, N. E.
LL.B., 1907, Georgetown University.		
Gerhart, Herbert, Benjamin, C.P.S.....	Pa.....	1822 H Street.
Geschickter, Jeanette, A.&S.....	D. C.....	1239 12th Street.
Giantvalley, Earl Arnold, A.&S....	Minn.....	National Museum.
Gibbs, Kate Maria, T.C.....	Mass.....	1216 S Street.
Gilliss, Helen, T.C.....	D. C.....	1307 Kenyon Street.
Glenn, Laura Emily, T.C.....	D. C.....	708 8th Street, N. E.
Glueck, Nathan H., A.&S.....	Wis.....	1115 Clifton Street.
Goodman, Estelle Annette, T.C....	D. C.....	520 E Street, N. E.
Gordon, Helen, T.C.....	Ill.....	1627 Lamont Street.
Gorman, Alexander, A.&S.....	D. C.....	1727 Kilbourne Place.
Gore, Michael Alvord, A.&S.....	D. C.....	1147 New Hampshire Avenue.
Graham, Edgerton Goldsbor- ough, Eng.....	D. C.....	616 Keefer Place.
Grebe, Walter C., Eng.m.....	D. C.....	817 15th Street.
Graduate, U. S. Naval Academy. |		
Green, Andrew Jordan, C.P.S....	D. C.....	
LL.M., 1905, The George Washington University.		
Greenwald, Harold Putnam, Eng.c.....	D. C.....	1749 Lanier Place.
Greenway, Charles Thomas, A.&S.....	Iowa.....	2003 H Street.
Griffith, Alice Eleanor, A.&S.....	D. C.....	1846 Ontario Place.
Grouard, Maria Louise, T.C....	N. H.....	1600 Scott Circle.
Grunwell, John Roscoe, Eng.....	D. C.....	1515 30th Street.
B.S., in Arch., 1909, University of Pennsylvania.		
Gsantner, Otto Carl, A.&S.....	D. C.....	2811 24th Street, N. E.
Guerrant, Sallie A., A.&S.....	Va.....	1212 34th Street.
Hafford, Thomas A., Eng.c.....	N. Y.....	1215 O Street.
Haines, Ora E., A.&S.....	D. C.....	C/o Civil Service Com.
Hall, Frank Loomis, A.&S.....	Mich.....	313 East Capitol Street.
Halls, Jay C., C.P.S.....	Wis.....	1432 M Street.

Name.	Legal residence.	City address.
Halsey, Arthur Sherman, Eng.m.	Pa.....	207 East Capitol Street.
Hamlin, Herbert Samuel, A.&S.	Utah.....	1100 Vermont Avenue.
Hammerley, Helen Augusta, A.&S	Va.....	1511 T Street.
Hancock, Walter Edgar, A.&S.	Tex.....	Takoma Park, D. C.
Handelsman, Samuel, A.&S.	N. Y.....	1104 5th Street.
Hanson, Elisha A., Jr., C.P.S.	Ill.....	119 Maryland Ave., N. E.
Hanvey, Edna E., A.&S.	D. C.....	1315 Emerson Street.
Harden, Fred Geer, C.P.S.	Nebr.....	231 B Street, N. E.
A.B., 1907, A.M., 1908, University of Nebraska.		
Hardy, Margaret Boude, A.&S.	D. C.....	638 East Capitol Street.
Hardy, Rose Lees, A.&S.	D. C.....	638 East Capitol Street.
Hargrave, Clarence Moore, A.&S	Ind.....	612 Y. M. C. A.
Harkness, Arthur Williams, A.&S	Ind.....	2224 F Street.
Harper, Charles W., Eng.	S. C.....	The Astoria.
Harrington, George Traver, A.&S	Vt.....	1120 Virginia Ave., S. W.
B.S., in Agriculture, 1909, University of Vermont.		
Harris, Albert Lewis, Eng.a.	D. C.....	1505 Lamont Street.
Harrison, Bessie McKenney, T.C	D. C.....	931 S Street.
Harrison, Henry Turner, Eng.	Md.....	College Park, Md.
Harrison, Robert Horace, Eng.c	D. C.....	2208 1st Street.
Harsch, Erwin, Eng.c.	Ohio.....	1318 Maryland Ave. N. E.
Hart, John Allen, Eng.c.	Tex.....	314 East Capitol Street.
Hart, Louise Goff, T.C.	W. Va.....	515 B Street, N. E.
Hart, Raymond Sagar, Eng.a	D. C.....	No. 22, The Hoffman, 1332 Belmont Street
Harter, Eugene C., C.P.S.	D. C.....	923 12th Street.
Haslup, Alice Elma, T.C.	D. C.....	2114 18th Street.
Hathaway, Lillie Theresa, A.&S	D. C.....	1615 Swann Street.
B.S., 1910, The George Washington University.		
Hauke, Rilla May, A.&S.	Wash.....	605 Mass. Ave., N. E.
Hawkins, Margaret Amelia, T.C	D. C.....	1223 Fairmont Street.
Hayden, Leo J., C.P.S.	Mich.....	Civil Service Com.
Hayes, Harold C., C.P.S.	D. C.....	2111 Bancroft Place.
Head, James William, C.P.S.	Va.....	Barcroft, Va.
Hearne, Susan Snell, A.&S.	Mo.....	1307 P Street
Hecht, Max, A.&S.	N. Y.....	1476 Clifton Street.

STUDENTS IN THE UNIVERSITY.

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Name.	Legal residence.	City address.
Heisley, George Edgar, Eng.	D. C.	1114 Monroe Street.
Heitmuller, George Roeder, C.P.S.	D. C.	1307 14th Street.
Hellman, Dorothy, T.C.	Wyo.	2804 Cathedral Ave.
Hellman, Florence S., A.&S.	Wyo.	2804 Cathedral Ave.
Hemrich, Ernest Edward, A.&S.	D. C.	1100 Vermont Avenue.
Henry, Alfred J., A.&S.	Va.	Mount Weather Observ- atory, Bluemont, Va.
Henry, Irbie Clinton, A.&S.	Mo.	H. of Rep., Office Bldg.
Hermanns, Anna Marie, T.C.	Md.	2153 L Street.
Herndon, Neal N., Eng.c.	Ala.	1515 Vermont Ave.
Heron, Louis Mann, Eng.e.	D. C.	1322 14th Street.
Hersey, Harold Brainard, A.&S.	Mont.	Congressional Library.
Hession, John H., Eng.c.	Mass.	1419 W Street.
Hicks, Russell E., A.&S.	Md.	Rockville, Md.
Hidalgo-Rizal, Alfredo, C.P.S.	P. I.	No. 51, The Brunswick. B.S., Lycee of Manila
I.L.B., National University.		
Hill, G. Sydney, C.P.S.	Mass.	1734 Penn. Ave.
Hill, Harry D., A.&S.	Ind.	1845 Calvert Street.
Hitchcock, Geraldine, A.&S.	Wash.	The Highlands.
Hobbs, Enid Marian, A.&S.	Canada.	1370 Perry Place.
Hobbs, Ewart William, C.P.S.	Ill.	1370 Perry Place.
Hodgkins, George Wilson, A.&S.	D. C.	1830 T Street.
Hodgkins, Howard Wilkerson, Eng.c.	D. C.	1830 T Street.
Hoffman, Edwin S., Eng.e.	Pa.	1007 Mass. Ave. N. E.
Holden, Brigid Elizabeth, A.&S.	D. C.	488 I Street, S. W.
Holmes, Ronald M., A.&S.	Pa.	726 3rd Street, N. E.
Holmes, Thomas N., Eng.	Pa.	
Hospital, Ralph, A.&S.	D. C.	3500 15th Street, Brookland, D. C.
Hough, Roland P., Eng.c.	Va.	Clarendon, Va.
Houghton, Carlos Cranford, A.&S.	D. C.	2011 Kalorama Road.
Howard, Charles Edward Nason, U.S.A., Eng.	D. C.	1929 K Street.
Howard, Dudley Blanchard, Eng.	D. C.	314 East Capitol Street.
Howard, William J., A.&S.	Colo.	1815 Taylor Street.
Howell, Humphrey Daniel, C.P.S.	D. C.	724 10th Street, N. E.
Huff, Daisie Ione, T.C.	Ill.	1223 12th Street.

Name.	Legal residence.	City address.
Hughes, Lotus Graham, C.P.S.	D. C.	631 East Capitol Street.
Hull, Flora, A.&S.	Nebr.	The Iowa.
Hummer, Elizabeth Alice,		
A.&S.	D. C.	638 East Capitol Street.
Hunt, Stella Josephine, A.&S.	Tex.	9 B Street.
Hurley, Patrick, C.P.S.	Okla.	1331 Vermont Avenue.
A.B., Bacone University.		
LL.B., National Law School.		
Hynson, Richard Washburn,		
C.P.S.	D. C.	1335 N Street.
Ingram, Charlton Weber,		
Eng.m	D. C.	713 Taylor Street.
Jack, Julia Gordon, A.&S.	D. C.	1326 Corcoran Street.
Jackson, Maude Lillian, A.&S.	D. C.	3630 13th Street, N. E.
James, William Stubbs, Eng.c.	Mass.	1504 R Street.
Janer, Ramon Isaac, C.P.S.	P. R.	Apt. 16, The Maxwell.
Jeffrey, Warren Perry, Eng.	Wash.	1502 Vermont Avenue.
Jeffrey, Frank Rumer, A.&S.	Wash.	1502 Vermont Avenue.
Johnson, Bert D., A.&S.	D. C.	1926 T Street.
Johnson, Charles Albert, T.C.	D. C.	2837 12th Street, N. E.
Johnson, Robert, C.P.S.	Mo.	1219 Connecticut Ave.
A.B., 1911, The George Washington University.		
Johnson, Ross Holbrook, A.&S.	D. C.	1804 Belmont Road.
Johnston, Anna E., A.&S.	Ohio.	1028 8th Street.
Jones, Eleanor Isabelle, A.&S.	D. C.	Apt. 8, 1440 Meridian Place.
Jones, James Lyons, Eng.e.	Pa.	818 Allison Street.
Jones, J. Walter, C.P.S.	Canada.	1657 31st Street.
B.S.A., 1909, Toronto University.		
A.B., Arcadia University.		
Jones, Melville Emory, Jr.,		
Eng.e	D. C.	900 F Street.
Jonscher, Robert A., A.&S.	D. C.	312 C Street, N. E.
Judd, Edwin E., C.P.S.	D. C.	15 Todd Place, N. E.
Kaulbeck, Clarence L., C.P.S.	Pa.	Hyattsville, Md.
Kause, Robert Lincoln, Eng.c.	Ohio.	1905 Jackson St., N. E.
Keats, Harold, A.&S.	Pa.	2449 18th Street.
Keene, Elwood Ray, Eng.	D. C.	1664 Columbia Road.
Keithley, Joseph Rayburn,		
C.P.S.	Mo.	1831 G Street.
B.S., 1908, B.S., 1911, University of Missouri.		
Kellberg, Ira Newton, A.&S.	Pa.	1914 Calvert Street.
Kelley, Eva Phelps, A.&S.	Nebr.	213 Holly Ave., Takoma Park,

Name.	Legal residence.	City address.
Kelly, Walter E., C.P.S.....	Ohio.....	18 5th Street, S. E.
Kelly, William Francis, Jr., Eng.c	D. C.....	2117 Flagler Place.
Kennedy, Charles Bayard, Eng.m	D. C.....	1304 13th Street.
Kent, Henry J., Eng.e.....	Mass.....	3145 Mt. Pleasant Street.
Kent, Lavinia Grace, A.&S.....	Me.....	103 8th Street, N. E.
Kerby, Florence Marcellina, A.&S	D. C.....	2606 L Street.
Kerby, Katharine, A.&S.....	D. C.....	2606 L Street.
Kersey, Virginia, T.C.....	D. C.....	1312 L Street.
King, Edith Haynes, A.&S.....	Ohio.....	918 M Street.
King, Howard Perley, Eng.c.....	D. C.....	3515 14th Street.
King, Myrtle Virginia, T.C.....	D. C.....	328 10th Street, N. E.
Kingsbury, Joseph Bush, A.&S.....	Iowa.....	Y. M. C. A.
Kingsley, Clara Gladys, A.&S.....	D. C.....	
Kinsell, Rex Emir, A.&S.....	Iowa.....	1335 Mass. Ave., S. E.
Kirk, Theodore Tilton, Eng.c....	Ky.....	1223 12th Street.
Kisseleff, Charles William, Eng.c	D. C.....	1517 5th Street.
Knudson, Clarence A., A.&S....	Wis.....	610 22nd Street.
Krentzlin, Leopold Ludwig, C.P.S	S. C.....	The Congressional.
Kruger, Henry Alexander, Eng...D. C.....		726 9th Street, S. E.
Kuehn, Herman A., Eng.c.....	Ind.....	411 P Street.
Kuntz, Celia B., A.&S.....	Ky.....	211A Bates Street.
Lamson, Frank S., Eng.e.....	D. C.....	1715 Kilbourne Place.
Landon, Chauncey L., C.P.S.....	D. C.....	2304 Penn. Ave.
Lawson, Margaret Lucile, T.C....	D. C.....	206 13th Street.
Le Duc, Percy Walborn, Eng.c....	D. C.....	817 Varnum Street.
Leland, Florence Ruth, A.&S.....	D. C.....	2L6 Fifth Street, S. E.
Lenney, John Joseph, C.P.S.....	Va.....	1412 Mass. Avenue.
Leonard, Lewis Thompson, A.&S	D. C.....	520 G Street, N. E.
Leonard, William Michael, Eng.e	Pa.....	520 G Street, N. E.
Lepper, Henry Albert, A.&S.....	D. C.....	1620 6th Street.
Lewis, Vera Perkins, A.&S.....	D. C.....	1116 12th Street, N. E.
Liebschutz, Eugenie, T.C.....	France.....	1446 Irving Street.
Lind, Ida May, T.C.....	Iowa.....	4516 14th Street.
Lindsay, Alfred Briscoe, A.&S....	D. C.....	1809 18th Street.
Litchfield, Henry Edward, Eng....	D. C.....	308 L Street, S. E.
Llufrio, Albert Vincent, A.&S....	D. C.....	618 8th Street, N. E.
Lock, Elmer, A.&S.....	Miss.....	1126 G Street.

Name.	Legal residence.	City address.
Lodholz, Louis, A.&S.....	Pa.....	Y. M. C. A.
Louis, Hsiao Min, C.P.S.....	China.....	Chinese Legation.
M.A., 1910, College of Languages, Peking, China.		
Lovering, George Varnum,		
A.&S	D. C.....	Interstate Com. Com.
Luckings, Harry C., A.&S.....	N. J.....	522 7th Street, N. E.
Luebker, Timm Adolph, Eng.c....	D. C.....	1030 D Street, N. E.
Lugo-Vina, Wences, A.&S.....	P. R.....	147 Carroll St., S. E.
Lusby, Charles Edward, A.&S....	D. C.....	2909 O Street.
Mc Adams, Ralph W., Eng.c....	Kans.....	507 B Street, N. E.
McCabe, Lulu Mignonne, A.&S....	Kans.....	3469 14th Street.
McCalip, Curtis Edgar, Eng.e....	D. C.....	123 12th Street, S. E.
McChristie, Minor Everet,		
A.&S	Ohio.....	1316 Columbia Road.
McCormack, Joseph, A.&S.....	Pa.....	1318 13th Street.
McCormick, John D., Eng.c....	D. C.....	1377 North Carolina Ave.
MacFarlane, Nellie Rae, T.C....	D. C.....	1719 13th Street.
MacIntosh, Anna Belle, T.C....	N. Y.....	317 F Street, N. E.
McKnew, Jane Marion, T.C....	D. C.....	2112 G Street.
McLeran, John D., A.&S.....	Miss.....	401 M Street, N. E.
McMahon, Margaret Agnes,		
T.C	D. C.....	1342 R Street.
B.S., 1906, M.A., 1907, The George Washington University.		
Magruder, Oliver Graham,		
Eng.c	D. C.....	54 U Street.
Manly, Basil M., C.P.S.....	Va.....	Bureau of Labor.
Marcus, Mandel Manning,		
C.P.S	Wis.....	Apt. 42, The Valois.
Marino, Charles George, A.&S....	N. Y.....	1328 I Street.
Marks, Joseph, Eng.c	Pa.....	903 F Street, N. E.
Marshall, William Francis,		
C.P.S	R. I.....	615 22nd Street.
Marvin, Francis Edwin, Eng.e....	N. Y.....	606 F Street, N. E.
Mascolo, Edward, A.&S.....	Conn.....	221 1st Street.
Mason, Charles Sumner, Eng.a....	D. C.....	Langdon, D. C.
Mason, Josephine Dwight, T.C....	Mass.....	132 A Street, N. E.
Mason, Samuel Worcester,		
Eng.e	Va.....	308 B Street, N. E.
Massey, Jerry C., C.P.S.....	Okla.....	House Document Room.
Matteassian, Edward M., C.P.S...	Turkey.....	616 18th Street.
A.B., 1908, Robert College, Constantinople.		
Maxson, Louis Archer, A.&S....	Md.....	Kensington, Md.
Mayes, Basil Lamar, C.P.S....	Miss.....	1733 17th Street.
Meany, Lloyd Emmart, Eng.c....	D. C.....	908 23rd Street.
Meeks, Sallie L., A.&S.....	D. C.....	4127 9th Street.
Mehurin, Roger Melville, A.&S...	Va.....	1305 10th Street.

Name.	Legal residence.	City address.
Meier, Julius Earnest, A.&S.....	Ohio.....	910 M Street.
Mentzer, Florence Eberly, A.&S	Pa.....	605 N. C. Ave. S. E.
Merritt, Engene, C.P.S.....	D. C.....	Chevy Chase, Md.
A.B., 1903, Cornell University.		
Merritt, Leonard Atkins, C.P.S....	Minn.....	Dept. of State.
LL.B., 1904, LL.M., 1905, The George Washington University.		
Middleton, Herbert Paul, Eng.c....	N. Y.....	1506 Q Street.
Miller, Allison Nailor, A.&S.....	D. C.....	Cleveland Park, L. C.
Miller, Dayton Baird, A.&S.....	D. C.....	15 Quincy Place.
Milliken, Florence Ethel, T.C....	D. C.....	463 P Street.
Minor, Mary Virginia, A.&S.....	Va.....	403 The Alabama.
Mizell, J. Zachary, A.&S.....	Fla.....	Y. M. C. A.
Moneyway, James Lewis, A.&S....	Ala.....	1454 Fairmont Street.
Monk, Ella May, T.C.....	N. Y.....	902 Mass. Ave. N. E.
Moore, Kate Carroll, A.&S... ..	D. C.....	2024 15th Street.
Moore, Milton Donaldson, A.&S	S. C.....	1410 Euclid Street.
Moore, Thomas Emmitt, A.&S....	D. C.....	45 Quincy Street.
Moreland, John Edwin, Eng.e....	D. C.....	1113 15th Street.
Morgan, William Harper, C.P.S	Ala.....	413 N. J. Ave., S. E.
A.B., University of Alabama.		
Morrison, Hugh Shannon, Eng....	D. C.....	Station H, R. D. No. 1, Washington, D. C.
Moyer, Florence, A.&S.....	D. C.....	610 8th Street, N. E.
Muench, Elsa Dorothea, A.&S....	D. C.....	1354 Monroe Street.
Mulligan, William Miles, A.&S....	D. C.....	3105 11th Street.
Murray, Thomas Patrick A., Eng. A.....	Mass.....	1830 G Street.
Nash, Jamse P., Eng.c.....	Pa.....	718 19th Street.
Nealy, Ronald Beaman, C. P.S....	D. C.....	The Woodley.
Nettleton, Leigh Lanman, C.P.S....	Utah.....	1822 H Street.
Neumann, Frederica, T.C.	Ill.....	701 A Street, S. E.
Newbold, Katharine Mitchell, A.&S.	Md.....	11 Irving Street, Chevy Chase, Md.
Newton Grace Gadsdon, T.C.....	D. C.....	1831 Belmont Road.
Nickles, Edward Belmer, Eng.m.	D. C.....	122 Florida Avenue.
Norcross, Mae Ruth, A.&S.....	D. C.....	The Albemarle.
Norton, Frederick Aloy- sius, A.&S.	Mass.....	115 I Street.
Nusbaum, Jesse Logan, A.&S....	Colo.....	1326 L Street.

Name.	Legal residence.	City address.
Nyman, Arthur O., A.&S.	Ill.	58 Seaton Place.
Oberly, Portia Meredith, T.C.	N. H.	2619 Garfield Street.
Oldsen, Carl H., A.&S.	Iowa.	1800 Belmont Road.
Olson, Oliver Malvin, A.&S.	Iowa.	Y. M. C. A.
O'Rourke, Francis Joseph, Eng.	R. I.	1773 T Street.
Ossire, Cora Amelia, T. C.	D. C.	2729 Ontario Road.
Osterhout, Karl Jackson, A.&S.	Pa.	1424 W Street.
Outwater, Kate Sorrell, T. C.	Va.	620 F Street, S. W.
Palmer, Elizabeth Downer, A.&S.	D. C.	2818 13th Street.
Panopio, Eliseo M., Eng.	P. I.	509 6th Street.
Passet, Bernhardt J., A.&S.	N. J.	815 11th Street.
Patterson, Russell Brown, Eng.	N. H.	2016 15th Street. A.B., Dartmouth College.
Patterson, Ruth Capelle, T. C.	D. C.	2016 15th Street.
Paulson, Peter C., C.P.S.	Iowa.	Interstate Com. Com. A.B., 1904, Luther College.
Pearce, Lida Marie, T.C.	D. C.	1737 S Street.
Peck, Caro B., Eng.	Ill.	1263 Irving Street.
Perry, Emily Kershaw, A.&S.	D. C.	1863 Mintwood Place.
Peterson, Frank Daniel, Eng. c.	Ill.	17, Y. M. C. A.
Pfaender, Max C. P. S.	D. C.	1518 9th Street.
Phillips, George Washing- ton, Eng. c.	D. C.	612 18th Street.
Pidgeon, Charles Chandlee, A.&S.	D. C.	1207 Harvard Street.
Pierce, Sara, A.&S.	D. C.	1350 Oak Street.
Piggott, Mary Elizabeth, T. C.	Va.	East Falls Church, Va.
Pillow, Gideon Johnson, C.P.S.	La.	1414 Clifton Street. LL.B., 1911, The George Washington University.
Planck, Mildred Marion, A.&S.	Nebr.	27 B Street.
Poole, George Eng. m.	D. C.	903 E Street. S. E.
Pope, Ruth Vesta, A.&S.	Calif.	1340 Meridian Place.
Potbury, Robert John, Eng. c.	D. C.	1131 Euclid Street.
Potter, Charles Hollister, A.&S.	D. C.	918 F Street.
Pozen, Morris A., A.&S.	D. C.	1214 6th Street. Phar.D., 1908, The George Washington University.
Procter, Arthur Wyman, C.P.S.	Nebr.	518, Y. M. C. A.
Pulliam, Jesse H., A.&S.	Miss.	1826 G Street.
Quarton, Harold Barlow, C.P.S.	Iowa.	1100 Vermont Avenue. Phar. B., 1908, Grinnell College.
Rager, Amy Elizabeth, A.&S.	D. C.	812 21st Street.
Raymond, Norman Ticknor, C.P.S.	N. J.	1486 Chapin Street.
Reavis, Andrew Bryant, A.&S.	Tenn.	The Northumberland.

Name.	Legal residence.	City address.
Reavis, Joseph Patrick, A.&S.	Tenn.	The Northumberland.
Redfield, Arthur Huber, A.&S.	D. C.	9 Randolph Place, N. E.
Reese, Clarence Herbert, A.&S.	D. C.	208 D Street.
Reese, Francis Sydney, Eng.m.	Md.	1324 Mass. Avenue.
Reeve, Felicia Ann, T.C.	D. C.	1626 19th Street.
Reges, Max F., Eng.c.	N. J.	1339 3rd Street.
Reinhardt, John J., A.&S.	Nebr.	1908 H Street.
Reisinger, Margaret Edna, A.&S.	D. C.	1836 4th Street.
Renner, Wilbert Vernon, Eng.c.	D. C.	Langdon, D. C.
Richard, Vernon Irving, A.&S.	D. C.	309 B Street, N. E.
Richards, Henry Tilton, A.&S.	Mass.	1433 L Street.
Richards, Ruth Bergman, A.&S.	D. C.	101 Mass. Avenue.
Riggles, Joseph Richard, Jr., A.&S.	D. C.	1328 Fairmont Street.
Riley, Flora M., A.&S.	D. C.	1754 S Street.
Ritt, Joseph Fels, A.&S.	N. Y.	1304 Belmont Street.
Robertson, John Porteous, Eng.	Nebr.	1100 Vermont Avenue.
Roberts, Iorwerth J., A.&S.	Pa.	1731 13th Street.
Robinson, Ednah Florence, T.C.	D. C.	2623 Garfield Street.
Rodgers, Alexander, Jr. A.&S.	D. C.	1221 Connecticut Ave.
Rogers, Edith, A.&S.	Va.	1311 K Street.
Rogers, Frank Beecher, Eng.c.	N. Y.	1310 Girard Street.
Rohrer, Joseph R., A.&S.	Ohio.	932 I Street.
Rollins, Helen Gertrude, T.C.	Mich.	1534 A Street, N. E.
Rollins, James Herrell, T.C.	Va.	R. F. D. No. 2, Alexandria, Va.
Rose, Anna Lorette, A.&S.	Pa.	301 S Street, N. E.
Rose, Leonard Julian, Eng.c.	D. C.	1442 S Street.
Rosen, Urban F., Eng.m.	D. C.	127 C Street, S. E.
Roundy, Paul Vere, A.&S.	N. Y.	U. S. Geological Survey.
Rous, Ella Woolford, T.C.	D. C.	1906 Florida Avenue.
Rubino, Peter Joseph, A.&S.	N. Y.	Y. M. C. A.
Rucker, Mariamne Council A.&S.	Va.	Clarendon, Va.
Russell, Paul G., A.&S.	D. C.	3538 Warder Street.
Safford, Howard Palmer, Eng.e	D. C.	1933 Park Road.
St. Clair, Albert Thurston, Eng.e	D. C.	1319 T Street.
Salant, Annie, A.&S.	N. Y.	1647 Lamont Street.

Name.	Legal residence.	City address.
Sale, Prentiss Dixon, Jr., Eng.c.	D. C.	225 8th Street, N. E.
Sanborn, George Allen, A.&S.	Wis.	
Sandberg, Adolph, A.&S.	D. C.	1402 14th Street.
Sanders, Elsie, T.C.	D. C.	1515 Park Road.
Scales, Freeman M., Eng.	Ky.	1477 Newton Street.
Schladt, George J., Eng.e.	D. C.	Potomac Heights.
Schlosser, Julius L., A.&S.	D. C.	31 Maple Street, Takoma, D. C.
Schmidt, Meta, A.&S.	D. C.	1104 P Street.
Schmitt, Edwin Alexis, Eng.c.	D. C.	211 Florida Avenue.
Schmitt, Hugo Rudolph, Eng.e.	D. C.	211 Florida Avenue.
Schoenfeld, Herbert Her- mann, Eng.m.	D. C.	3448 34th Place, Cleveland Park.
Schul, Louise Amy, A.&S.	D. C.	235 New Jersey Avenue.
Scott, Joseph Addison Pres- ton, Jr., Eng.c.	D. C.	902 Maryland Ave. N. E.
Scott, Leila Fordham, A.&S.	D. C.	649 B Street, N. E.
Seaman, Alexander Rives A.&S.	Va.	Drawer 148, Alexandria, Va.
Seiler, Paul Basil, A.&S.	N. J.	1012 15th Street.
Se Legue, Charles Albert, A.&S.	Ind.	1400 Chapin Street.
Semones, Julia Angie, T.C.	Va.	Falls Church, Va.
Shackelford, Arline Edison, A.&S.	Mo.	Washington College.
Shuman, Royal Lewis, A.&S.	D. C.	3519 14th Street.
Sikken, Janet Melvin, A.&S.	D. C.	129 T Street.
Silvester, Jane B., A.&S.	D. C.	2005 Kalorama Road.
Simpson, Buhl, A.&S.	Md.	1445 Mass. Avenue.
Simpson, Walter Scott, Eng.	D. C.	508 10th Street, S. E.
Skinner, Arthur William, Eng.m.	Md.	Takoma Park, D. C.
Sllarrow, Mary Gordon, A.&S.	D. C.	1308 13th Street.
Sllarrow, Malcolm Gordon, Eng.c.	D. C.	1308 13th Street.
Slindee, Michael E., C.P.S.	Ind.	Y. M. C. A.
LL.M., 1910, Georgetown University.		
Sloane, Charles Edward, Eng.	D. C.	1733 T Street.
Smallwood, Dorothy Arch- ibald, A.&S.	D. C.	2107 S Street.
Smith, Duncan Campbell, A.&S.	Md.	Rockville, Md.

Name.	Legal residence.	City address.
Smith, Frank Brown, C.P.S.....	Md.....	1318 12th Street.
Smith, Janie Alice, A.&S.	D. C.....	637 Mass. Ave. N. E.
Smith, McClain Baruitz, Eng.e.	Pa.....	658 Morris Street, N. E.
Smith, May Wolfe, A.&S.	Minn.....	1511 13th Street.
Smith, Robert Hamilton, C.P.S....	D. C.....	1746 Kalorama Road.
Smith, Rodney Marshall, Eng.c.	D. C.....	619 12th Street, N. E.
Smith, Vincent Baker, Eng.c.....	D. C.....	3007 P Street.
Snelling, Henry Horner, Eng.m.	Va.....	3522 10th Street.
Soling, Abraham, Eng.	N. Y.....	Bureau of Standards.
Southgate, Letitia Park, A.&S....	D. C.....	432 Warner Street.
Sparrow, Robert Carlton, Eng....	D. C.....	2955 Tilden Street.
Spear, Hiram Eugene, A.&S.....	D. C.....	1241 Morse Street, N. E.
Springer, Lew Wallace, C.P.S....	Wis.....	The Benedict.
Stambaugh, Josephine, A.&S.....	Va.....	Falls Church, Va.
Stannard, Winfield Han- cock, A.&S.	Mass.....	1304 L Street.
Stearns, Orlo Foster, A.&S.	Mass.....	1610 13th Street.
Steck, Charles Frederick, A.&S.	D. C.....	1620 Riggs Place.
Steinberg, Aaron, A.&S.	N. Y.....	300 14th Street, S. W.
Steinberg, Abraham, A.&S.	N. Y.....	300 14th Street, S. W.
Stevens, Arthur E., A.&S.....	Ohio.....	147 Tenn. Ave. N. E.
Stewart, Elmer, A.&S.	D. C.....	1812 Lamont Street.
Stockard, Marietta, T.C.	N. C.....	1627 Lamont Street.
Stockton, Thomas Jef- ferson, Eng.e.	Kans.....	1944 2nd Street.
Stoddard, Alfred L., A.&S.	Iowa.....	1426 6th Street.
Stoll, Clara, A.&S.	Austria....	1302 Rhode Island Ave.
Stotemyer, George B., Eng.c.....	D. C.....	1342 Riggs Street.
Stratton, Henry Alexander, C.P.S.	N. J.....	Y. M. C. A.
Stutler, H. Ward, Eng.a.	W. Va.....	1736 G Street.
Stutzman, William Ernest, Eng.e.	D. C.....	3533 Warder Street.
Stuwe, John Daniel, Eng.e.....	Minn.....	1307 13th Street.
Summy, Ethel Isabelle, A.&S....	D. C.....	1623 R Street.
Summy, Katherine Strong, A.&S.	D. C.....	920 19th Street.
Summy, William Frank, A.&S....	D. C.....	1623 R Street.
Swann, Theodore Magruder, A.&S.	Md.....	Clarendon, Va.

Name.	Legal residence.	City address.
Swartzell, John Naylor,		
Eng.m.	D. C.	2117 Bancroft Place.
Taggart, Earl, A.&S.	Kans.	Y. M. C. A.
Tauberschmidt, John A., A.&S.	D. C.	922 Westminster Street.
Taylor, Edward Thomas, A.&S.	Colo.	Y. M. C. A.
Taylor Irving Paul, A.&S.	D. C.	1433 Belmont Street.
Taylor, James Norman, A.&S.	Del.	1315 K Street.
Taylor, Nellie Boyd, T.C.	D. C.	1753 Columbia Road.
Taylor, Olivia Alexander,		
A.&S.	D. C.	The Exeter.
Taylor, Summers Wilson,		
Eng.e.	D. C.	1224 13th Street.
A.B., 1907, Wofford College.		
Tepper, Benjamin L., C.P.S.	N. J.	1244 Evarts Street, Brookland, D. C.
LL.B., 1910, Georgetown Law School.		
Terry, Leo Claude, A.&S.	Pa.	1019 Lamont Street.
Thatcher, Arthur S., A.&S.	Pa.	The Nansemond.
Thomas, Charles Lenton, A.&S.	Tex.	1119 K Street.
Thomas, Frank Wheelock,	D. C.	18th and Park Road.
A.&S.		
Thompson, Alfred Wright,	D. C.	1624 Riggs Place.
A.&S.		
Thompson, Harry Woodward,		
Eng.m.	Iowa.	1340 Girard Street.
Thorne, Harold Carrier,		
Eng.e.	D. C.	Bureau of Standards.
Thorwarth, Julia Helen, A.&S.	Minn.	1320 Park Road.
Thrall, Edward Wolff, A.&S.	D. C.	1533 T Street.
Tiffany, Emma Ruth, T.C.	D. C.	3409 Brown Street.
Tilton, Fletcher Sandford,		
A.&S.	N. H.	2947 Tilden Street.
Towers, Edwin Gardner		
Weed, Eng.	Md.	Mechanical Dept., S. R. R., 1300 Penn. Ave.
Towner, Horace Cole, A.&S.	Iowa.	The Marlborough.
Townsend, Tyler H., Eng.e.	Tex.	1611 Lincoln Ave., N. E.
Truesdell, Leon Edgar, C.P.S.	Vt.	1300 10th Street.
Trumbower, Eli C., Jr., A.&S.	Del.	1714 Q Street.
Tyler, G. W., C.P.S.	Iowa.	Y. M. C. A.
LL.B., 1909, LL.M., Georgetown University.		
Ulrickson, Hilda Louise, A.&S.	D. C.	617 21st Street.
Underwood, Harriet, T.C.	D. C.	2551 37th Street.

Name.	Legal residence.	City address.
Underwood, Mary Louise, T.C....	D. C.....	707 East Capitol Street.
Upton William Baly, Jr., Eng....	D. C.....	3420 Newark Street, Cleveland Park.
Van Arsdale, Emily, A.&S.....	D. C.....	The Imperial.
Vandegrift, John Leslie, Eng.c....	D. C.....	1214 G Street, N. E.
VanKirk, Lloyd Howard, A.&S.	Pa.....	1854 Ingleside Terrace.
Van Loock, Louis Anthony, Eng.	D. C.....	104 15th Street, N. E.
Van Vleck, Arthur Nye, A.&S....	D. C.....	1410 Euclid Street.
Van Waters, Sherwood, P., A.&S.	N. Y.....	408 3rd Street.
Varney, Forrest F., Eng.c.....	Wis.....	Y. M. C. A.
Veihmeyer, Frank, Eng.c.....	D. C.....	1518 S Street.
Wagner, Charles H., Eng.c.....	D. C.....	3319 P Street.
Wagner, Lawrence R., A.&S....	N. Y.....	802 L Street.
Waite, Stanley Sargent, C.P.S....	Okla.....	1331 Vermont Avenue. L.L.B., 1910, Georgetown University.
Wakefield, Walter Harold, Eng.c.	Md.....	129 Maple Avenue. Takoma Park.
Walker, Alberta, T.C.	D. C.....	1634 S Street.
Walker, Janet Gibson, A.&S.....	D. C.....	420 B Street, N. E.
Walker, Rosalie, A.&S.	D. C.....	420 B Street, N. E.
Wall, Adelaide Dorothy, A.&S....	D. C.....	4011 14th Street.
Wallace, Sebon Rains, A.&S.....	D. C.....	1004 Euclid Street.
Walters, Marion Irvén, Eng.c....	D. C.....	3228 Warder Street.
Walton, George Pelham, A.&S....	Ind.....	Langdon, D. C.
Walton, Melville Ralph, A.&S....	Ill.....	816 I Street, N. E.
Warner, Harold Ellsworth, A.&S.	D. C.....	1020 9th Street.
Washburn, Duane E., C.P.S.....	D. C.....	Dept. of State.
Watskey, Jack, A.&S.	Va.....	The Cumberland.
Webb, James William, Eng.....	D. C.....	1314 East Capitol Street.
Weber, John Augustus, Eng....	D. C.....	518 6th Street, N. E.
Weibel, Ernest Edward, A.&S....	Kans.....	3410 Newark Street.
Weller, Ethel Marguerite, A.&S.	D. C.....	753 8th Street, S. E.
Wells, Sadie Harriman, T.C.....	N. H.....	1512 P Street.
Wharton, Roger Daniel, Eng.c....	D. C.....	3411 Oakwood Terrace.
White, Mary Josephine, T.C.....	Ohio.....	National Park Seminary, Forest Glen, Md.
Whitzell, Margaret Eva, T.C.....	D. C.....	1218 11th Street.
Wiest, Edward, T.C.	Pa.....	1443 Mass. Avenue.

Name.	Legal residence.	City address.
Wilbur, Elizabeth Sabrina, A.&S.	D. C.	2107 S Street.
Wilcox, Edward L., A.&S.	D. C.	1221 B Street, N. E.
Wilhelm, Robert Mason, A.&S.	Md.	1845 Calvert Street.
Willard, Nana B., A.&S.	D. C.	623 M Street.
Williams, Edith Arvonja, A.&S.	D. C.	3512 11th Street.
Williams, Francis Edgar, C.P.S.	D. C.	The Ontario.
Williams, George Elmer, C.P.S.	Minn.	721 3rd Street.
Williams, G. Ellis, A.&S.	Md.	50 R Street, N. E.
Willis, Elsie Virginia, A.&S.	D. C.	1832 Biltmore Street.
Wills, R. Mayo, Eng.	Va.	318 New York Ave.
Wilson, Joseph H., Eng.	Pa.	1728 15th Street.
Wilson, Elizabeth, A.&S.	Ind.	The Balfour.
Wilson, Laurance Norton, A.&S.	Idaho.	2331 1st Street.
Wilson, Margaret Posey, A.&S.	D. C.	219 1st Street, N. E.
Wilson, Ralph, C.P.S.	Md.	1414 F Street.
Wingate, Wilmer L., C.P.S.	D. C.	2423 18th Street.
Winter, Jean Grace, A.&S.	Okla.	1002 Pa. Ave. S. E.
Woelper, Willard, C.P.S.	D. C.	Dumbarton Court.
Wong, Ung Ce, A.&S.	China.	1418 L Street.
Wood, Frank C., C.P.S.	Mo.	Y. M. C. A.
Woodward, Ester Ritten- house, T.C.	D. C.	125 New York Avenue.
Woodward, Francis Albert, Eng.m.	D. C.	2248 Ontario Road.
Worrell, Everil Florence, A.&S.	D. C.	1105 Clifton Street.
Worster, Louise, A.&S.	D. C.	942 B Street, S. W.
Wright, R. Claude, A.&S.	D. C.	1440 Meridian Place.
Wu Ying, A.&S.	China.	2415 20th Street.
Yoder, Bertha Alice, T.C.	D. C.	144 11th Street, S. E.
Yoder, Bessie Lee, T.C.	D. C.	144 11th Street, S. E.
Yost, Elsie May, A.&S.	D. C.	1002 Pa. Ave. S. E.
Zielinski, Carl Maria von C.P.S.	Germany.	1706 F Street.
Zinssmeister, Grace Mary, T.C.	D. C.	1364 Girard Street.
Zirkin, Maie, A.&S.	D. C.	821 14th Street.
Zusman, Samuel, A.&S.	N. Y.	327 D Street, S. W.

Summary.

GRADUATE STUDENTS:

Students in attendance.....	6
Candidates for C.E. degree.....	4
Candidates for E.E. degree.....	2
Candidates for M.E. degree.....	2
Candidates for M.S. degree.....	9
Candidates for M.A. degree.....	18
Candidates for Ph.D. degree.....	36

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Duplicate	1
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UNDERGRADUATE STUDENTS:

Columbian College :

Candidates for A.B. degree.....	183
Candidates for B.S. in Chem. degree.....	40
Special	107
Auditors	5

 335

College of Engineering and Mechanic Arts:

Candidates for B.S. in Arch. degree.....	3
Candidates for B.S. in C.E. degree.....	64
Candidates for B.S. in E.E. degree.....	24
Candidates for B.S. in M.E. degree.....	21
Special	40

 153

College of Political Sciences:

Candidates for A.B. degree.....	26
Candidates for M.Dip. degree.....	10
Special	54
Auditors	1

 91

Teachers College:

Candidates for A.B. degree and Teachers' Diploma.	72
Candidates for Teacher's Diploma.....	3
Special	8
Auditors	1

 84

 663

 739

Duplicates	6
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PROFESSIONAL DEPARTMENTS

DEPARTMENT OF LAW.

FIRST YEAR.

Name.	Legal residence.	City address.
Acker, Harold Knowles.....	D. C.	913 16th Street. Lafayette College.
Ahrberg, William Raymond.....	N. Y.	1312 Park Road.
Anderson, Paul	Ill.	1307 R Street.
Barton, Walter Elbert.....	Ida.	1106 L Street. University of Colorado.
Baumgartner, Edgar Foster.....	N. J.	1321 Irving Street. M.E., 1911, Lehigh University.
Belmont, Arnauld Wilfrid.....	D. C.	Wesley Heights, D. C. M.A., 1896, B.S., 1898, Montreal Classical College. Ph.D., 1900, McGill University.
Bisson, Louis Alfred.....	Mass.	3011 Georgia Avenue. Worcester Polytechnic Institute.
Bizzell, James Eustace.....	D. C.	The Burlington. George Washington University.
Black, Henry George Atkinson...	Mass.	613 Rock Creek Ch. Rd. Massachusetts Institute of Technology.
Borland, Paul Raymond.....	Pa.	1700 15th Street. A.B., 1910, Washington and Jefferson College.
Boughton, George Wilson.....	D. C.	1424 K Street.
Bowman, Ralph Grantham.....	Ind.	Y. M. C. A. Depauw University.
Bowman, Ralph McLane.....	D. C.	1440 Meridian Place. C.E., 1909, Cornell University.
Britton, John	D. C.	1848 Kalorama Road.
Calder, Albert Russell	Pa.	1700 15th Street.
Chamberlin, Arthur Newell.....	Vt.	The Brunswick.
Chilcote, Samuel S. C.....	Pa.	250 House Office Bldg.
Clark, Bennett Champ.....	Mo.	1509 16th Street. University of Missouri.
Clark, Merrell Edward	N. Y.	917 19th Street. M.E., 1911, Cornell University.
Crane, Alpheus Jennings.....	D. C.	2930 Thayer St., N. E. B.S. in E.E., 1903, Purdue University.
Crews, Chalsia E.....	Mo.	1913 North Capitol St. University of Missouri.
Cumpston, Jr., Edward Henry...	D. C.	1613 30th Street. M.E., 1909, Cornell University.
Daly, Ida May.....	D. C.	1118 R. I. Avenue. LL.B., 1909, Washington College of Law.
Davis, Ray Osborne.....	Va.	507 Prince Street, Alex- andria, Va.
Downing, Clyde Clayton.....	Okla.	260 House Office Bldg.
Elkins, Harry Scott.....	S. D.	1502 Vermont Ave.
Enlows, Harold Franklin.....	Ill.	1436 Meridian Place.
Evans, Budd	Minn.	The Plymouth.

Name.	Legal residence.	City address.
Fergusson, Jr., Harvey Butler.....	N. M.	352 House Office Bldg. A.B., 1911, Washington and Lee University.
Fitch, William Reed.....	N. D.	Y. M. C. A. George Washington University.
Fletcher, Frederick Dix.....	Wash.	1106 L Street University of Kansas.
Fraizer, Cecil C.....	Ind.	1412 Euclid Street University of Pennsylvania.
French, Louis Osborne.....	Wis.	1712 17th Street. S.B., 1910, Massachusetts Institute of Technology.
Freyer, Frank Barrows.....	D. C.	The Dresden. Graduate, United States Naval Academy.
Frost, Arthur Chester.....	Mass.	309 House Office Bldg. A.B., 1909, Harvard University.
Galloway, Andrew Barritt.....	Okla.	903 13th Street.
Garner, Alan Freeman.....	Va.	Victor J. Evans Co., Victor Building.
Gotta, Robert Bond.....	D. C.	1741 Oregon Avenue.
Greenberg, Louis	D. C.	612 N Street. George Washington University.
Greene, James Woodall.....	Md.	1843 Vernon Street.
Handy, William Upshur.....	D. C.	23 8th Street, S. E.
Harding, Arthur Eugene.....	D. C.	Navy Department.
Healy, Joseph Edward.....	Va.	1104 12th Street. William and Mary College.
Hendry, Morgan Leland.....	Md.	406 Evans Building. George Washington University.
Henry, Irbie Clinton.....	Mo.	717 A Street, S. E.
Hernandez, Enrique Dakanay....	P. I.	1833 K Street. B.A., 1904, Ilocana University.
Heroy, William Bayard.....	N. Y.	3030 Newark St., Cleve- land Park, D. C. Ph.B., 1909, Syracuse University.
Howard, Frank Atherton.....	Ill.	1733 R Street. B.S. in M.E., 1911, The George Washington University.
Howell, Luther Maughan.....	Utah	1742 P Street. Agricultural College of Utah.
James, Joseph Pierson.....	D. C.	1504 R Street. Leland Stanford University.
Johnson, Arthur Chilion.....	Colo.	1814 G Street. University of Colorado.
Jones, Carl Curtis.....	Me.	348 Senate Office Bldg.
Katlin, Irving	N. Y.	1207 6th Street. College of City of New York.
Kittredge, Scott Farrow.....	Me.	65 Rhode Island Avenue.
Koester, Paul	D. C.	2110 1st Street.
LaFollette, William Leroy, Jr....	Wash.	2006 Columbia Road. State College of Washington.
McCawley, Harrison Byington....	Iowa	Y. M. C. A. A.B., 1910, Drake University.
McMechan, John	Ind.	807 Taylor Street.
Meckley, Robert Byers.....	Pa.	1400 Chapin Street. B.S. in E.E., 1908, Pennsylvania State College.

Name.	Legal residence.	City address.
Neibling, Harold Edmund.....	Nebr.	2129 F Street. Cotner University.
Nicholson, Vincent DeWitt.....	D. C.	3201 19th Street. B.A., 1910, Earlham College.
O'Brien, Francis Vincent.....	N. Y.	1111 13th Street.
Oldsen, Carl H.	Iowa	1800 Belmont Road. Concordia College.
Paine, John Gregg.....	Pa.	3746 McKinley Street, Chevy Chase, D. C.
A.B., 1909, Wesleyan University.		
Parker, Thomas Eldridge.....	Mo.	806, The Farragut. George Washington University.
Pipes, Walter Logan.....	D. C.	1717 S Street. George Washington University.
Read, Raymond Edgar.....	Mass.	The Brunswick.
Rice, Willis Ballance.....	N. Y.	1647 Lamont Street. M.E., 1907, Cornell University.
Rubenstein, Samuel	N. Y.	1337 11th Street.
Sanborn, George Allen.....	Wis.	1303 Fairmont Street.
Sanders, Harold Benthall.....	Miss.	332 E Street, N. E. B.S., 1910, Mississippi Agricultural and Mechanical College.
Schaeffer, Harrold Christian....	D. C.	1843 R Street.
Schneider, Benjamin Bernish....	Wash.	1312 Belmont Street. B.S., 1910, State College of Washington.
Shelton, Theodore D.....	N. C.	2015 Flagler Place.
Simpson, Archer Roberts.....	Conn.	1712 17th Street. A.B., 1911, Yale University.
Smoot, Harold Reed.....	Utah	2521 Connecticut Avenue. Brigham Young University. University of Utah.
Spahr, Neal Bradford.....	Tenn.	22 K Street. B.A., 1911, University of Chattanooga.
Springs, Laertes Pittman.....	D. C.	2009 I Street.
Stafford, Edward	D. C.	1725 Lamont Street. A.B., 1911, Dartmouth College.
Stainback, Ashley Burnette.....	S. C.	1837 Vernon Street. B.A., 1906, Trinity College, Durham, N. C.
Steps, Robert Alexander.....	N. Y.	Y. M. C. A. M.E., 1911, Cornell University.
Stevenson, Charles Stanley.....	Kan.	921 O Street. Washburn College.
Stone, James Austin.....	D. C.	1618 R. I. Avenue. B.A., 1910, Swarthmore College.
Tanner, Marion Snow.....	Utah	117 Maryland Ave., N.E. B.A., 1911, University of Utah.
Trudgian, Andrew Beers.....	W. Va.	1509 13th Street. University of Pennsylvania.
Van Gunten, Henry Russell.....	Pa.	1432 M Street. University of Pennsylvania.
Van Wagoner, John D.....	Utah	Y. M. C. A. Utah Agricultural College.
Weikert, Edward Wilford.....	Pa.	1823 G Street. Ph.B., 1906, Brown University.

Name.	Legal residence.	City address.
White, Joseph Curtis.....	Me.	320 Maryland Ave., N.E. A.B., 1911, Bowdoin College.
Wolfe, Edmund Stanley.....	Md.	American Nat'l Bank. The George Washington University.
Woodson, Walter Browne.....	Va.	The Brighton. Graduate, 1907, United States Naval Academy.
Woolley, Herbert Elliott.....	Utah	The Birmingham. University of Utah.
Wright, Ulysses Wayne.....	Ill.	1822 H Street. A.B., 1911, Illinois College.

SECOND YEAR.

Alexander, William Morrison....	D. C.	1711 Q Street. Williams College.
Atherton, Ralph Edward.....	Ill.	1223 10th Street. B.S., 1901, Worcester Polytechnic Institute.
Babbage, Arthur Wallace.....	Ky.	1106 L Street. B.A., 1908, State University of Kentucky.
Barlow, Frank Augustus.....	Minn.	1717 S Street. A.B., 1910, University of Minnesota.
Barr, John Lester.....	D. C.	The Wyoming. A.B., 1910, Harvard University.
Bower, Frank Albert.....	N. Y.	Patent Office. M.E., 1910, Cornell University.
Buck, George Burton.....	Md.	Census Office.
Burger, Alfred	Va.	Patent Office.
Calley, Walter England.....	Pa.	Patent Office. S.B., 1903, University of Chicago.
Cobb, Victor	Va.	Patent Office. B.S., 1908, Harvard University.
Cohn, Mark Aurel.....	Pa.	1124 12th Street.
Coumbe, Edward Celestine.....	Wash.	1502 Vermont Avenue. Colorado State Agricultural College.
Cox, John Dee.....	Tex.	4300 Kansas Avenue. Southwestern University.
Creekmore, Thomas Leonidas....	Va.	1502 Vermont Avenue. William and Mary College.
Daniel, Robert Todd.....	D. C.	3000 Q Street.
Davis, Myron Mathews.....	Me.	1860 Columbia Road. S.B., 1909, Massachusetts Institute of Technology.
Deibert, Arthur Hannum.....	D. C.	1411 Harvard Street.
Denning, William Ira.....	Ga.	4127 9th Street. George Washington University.
Des Jardins, Clarence Bigelow....	Mich.	1717 S Street. B.A., 1909, Kalamazoo College.
Diener, John Astor.....	Ind.	1700 15th Street. B.S. in E.E., 1910, Purdue University.
Dunham, Harry E.....	N. Y.	1400 Chapin Street. E.E., 1906, Syracuse University.
Fehr, J. Ralph.....	Ill.	1717 S Street. George Washington University.
Feldman, Peter Royal.....	Wis.	Navy Department. George Washington University.

Name.	Legal residence.	City address.
Finley, David Edward, Jr.....	S. C.	1219 Conn. Avenue. B.A., 1910, University of South Carolina.
Geiman, Daniel J.....	Va.	1824 N. H. Avenue. Virginia Polytechnic Institute.
Gibbon, Charles Hugh.....	Wis.	"The La Grande." University of Wisconsin.
Hahn, Frederick Ansley.....	D. C.	301 Colorado Bldg. Washington and Lee University.
Hanna, Forest Walker.....	Mo.	1811 G Street. B.A., 1909, Northwestern University.
Harding, Harvey Almon.....	Nebr.	1739 Park Road. Northwestern University.
Hawley, Luther W.....	Vt.	Patent Office. B.S., 1908, Worcester Polytechnic Institute.
Heitmuller, George Roeder.....	D. C.	1307 14th Street. George Washington University.
Henderson, Robert	D. C.	1601 23d Street. Graduate, 1902, United States Naval Academy.
Hinton, Sebastian	D. C.	The Chalfonte. A.B., 1909, Princeton University.
Hubbard, Elliott S.....	N. Y.	Gov't Printing Office.
Hunter, William Boyd.....	Nebr.	Bureau of Corporations. B.S., 1897, A.M., 1898, University of Nebraska.
Isom, James Rudolph.....	Ark.	933 K Street. University of Arkansas.
Jackson, Edwin Roy.....	Iowa	4322 14th Street. B.S., 1904, State University of Iowa.
Jeffrey, Frank Rumer.....	Wash.	1502 Vermont Avenue. George Washington University.
Johnson, Robert	Mo.	1219 Conn. Avenue. George Washington University.
Kennedy, George Henry, Jr.....	D. C.	Patent Office. B.S. in M.E., 1910, University of Pennsylvania.
Kirley, Grover Cleveland.....	Mass.	1623 Park Road. A.B., 1909, Amherst College.
Knowlton, Morris Willson.....	Me.	4432 Kansas Avenue.
Krogstad, Robert Bacon.....	D. C.	1524 K Street. Cornell University.
Landers, Maurice Birdsall.....	N. Y.	1489 Newton Street. A.B., 1903, Hamilton College. S.B., 1905, Massachusetts Institute of Technology.
Larson, William Ludwig.....	S. D.	1700 15th Street.
Libby, Warren Edgar.....	Me.	1303 P Street. A.B., 1909, Bates College.
McKibbin, George Baldwin.....	Iowa	102 B Street, N. E. A.B., 1909, Iowa Wesleyan College.
Mapes, Carl Anthony.....	Mich.	1338 Newton Street.
Mascolo, Eduard.....	Conn.	221 1st Street. George Washington University.
Moore, Maurice Malcolm.....	Mich.	1869 Columbia Road. George Washington University.
Moore, Rawles	Ky.	1700 15th Street.
Morrison, William Lester.....	Mass.	1224 13th Street. George Washington University.

Name.	Legal residence.	City address.
Moses, William Henderson..... Brighton College.	D. C.	11th and F Streets.
Nixon, Cleon Robert B.S., 1909, Shurtleff College.	Ill.	209 A Street, S. E.
Ogilby, Chas. F. Randolph, Jr....	D. C.	1416 F Street.
Otto, Arnold Clarence..... Lawrence College. George Washington University.	Wis.	1717 S Street.
Philbrick, Francis Samuel..... B.S., 1897, M.A., 1899, University of Nebraska. Ph.D., 1902, Harvard University.	N. Y.	2339 18th Street.
Philips, Charles K..... A.B., 1909, Princeton University.	N. J.	1627 Lamont Street.
Preston, Neil DeForest..... M.E., 1908, Cornell University.	N. Y.	1824 California Street.
Rodgers, Robert Elmer.....	Texas	316 C Street.
Roller, Harry F..... A.B., 1906, University of Kansas.	Kans.	1201 Q Street.
Rose, Claude Custer..... M.E., 1905, Ohio State University.	Ohio	115 R Street, N. E.
Samsel, Albert Charles..... B.A., 1910, Maryville College.	Tenn.	6 Grant Place.
Schantz, Leroy Christian..... B.S. in E.E., 1908, Iowa State College.	Iowa	Y. M. C. A.
Sheppard, Ronald Willmot.....	N. J.	1839 Munroe Street.
Smith, Charles Watson..... University of Chicago.	Pa.	315 H Street.
Smith, Frank Brown..... Calvert Hall College.	Md.	1318 12th Street.
Smith, Frank Seymour..... B.A., 1910, Wesleyan University.	D. C.	1631 16th Street.
Stottle, Burr Shearer.....	Mo.	Y. M. C. A.
Straw, Charles Alonzo Jr..... A.B., 1901, Harvard University.	Mass.	3014 Dent Place.
Strong, William Jr..... Princeton University.	D. C.	1208 18th Street.
Stuart, Ralph Richard..... State University of Iowa.	Iowa	3000 Q Street.
Tolbert, James Ora..... A.B., 1904, Harvard University.	Iowa	Y. M. C. A.
Walker, Clarence Stevens..... A.B., 1904, Harvard University.	Mass.	Patent Office.
Waters, Joseph Henry..... B.S. in E.E., 1910, The George Washington University.	D. C.	3227 11th Street.
Wenderoth, Ernest Ferdinand.... B.S. in E.E., 1910, The George Washington University.	N. Y.	Patent Office.
White, Hubert Shadrach..... Eastern College.	Va.	1128 6th Street.
Wilson, Irving Thomas..... George Washington University.	Md.	Somerset, Bethesda, Md.
Woodman, William Hidden..... B.S., 1908, Dartmouth College.	N. J.	1933 Calvert Street.
Young, Earl	Minn.	727 13th Street.
Zacharias, Robert Mathias..... A.B., 1907, Franklin and Marshall College.	Pa.	1717 S Street.

THIRD YEAR.

Name.	Legal residence.	City address.
Andersen, Charles	Texas	1007 13th Street. University of Nashville. University of Chicago.
Baer, David Alphonse.....	D. C.	1860 Columbia Road. B.A., 1910, The George Washington University.
Baldwin, Asa Columbus.....	Ohio	135 A Street, N. E. A.B., 1908, Western Reserve University.
Barber, Azro Lucien.....	N. Y.	1502 Vermont Avenue. A.B., 1907, Syracuse University.
Bickel, Harvey Cleveland.....	Pa.	Y. M. C. A.
Bond, Eugene Webster.....	Ill.	1306 O Street. George Washington University.
Brookes, John St. Clair, Jr.....	D. C.	1525 Corcoran Street. A.B., 1907, M.A., 1910, The George Washington University.
Bullion, Clarence Leroy.....	Ohio	4434 Kansas Avenue.
Burns, Walter William.....	N. Y.	518 Shepherd Street. M.E., 1906, Cornell University.
Butler, Comfort Straight.....	Ill.	The Brunswick. A.B., 1909, University of Illinois.
Callister, Edward Richard.....	Utah	Ventosa Apartments.
Cox, Henry Aubrey.....	Tenn.	1502 Vermont Avenue.
Crowell, William Butterworth....	Ohio	1600 Park Road.
Davis, Max Warburton.....	Conn.	2518 17th Street. M.E., 1908, Cornell University.
Davis William Edward.....	Md.	1226 11th Street. A.B., 1907, Western Maryland College.
Denman, Charles Arthur.....	Nebr.	604 C Street, N. E.
DeWolf, Richard Crosby.....	Mass.	321 Maryland Ave., N.E. Massachusetts Institute of Technology.
Dodge, Parker Van Patten.....	D. C.	134 B Street, N. E. S.B., 1907, Massachusetts Institute of Technology.
Dunlop, Walter Grafton.....	D. C.	The Cordova. B.S., 1909, Princeton University.
Dutton, Clarence Benjamin.....	Mass.	1331 Belmont Street.
Eickhoff, Theodore Henry.....	Ind.	1922 16th Street. B.S. in E.E., 1908, Purdue University.
Fornaris, Fernando Braulio.....	P. R.	1419 Clifton Street. University of Virginia.
Fraser, William Wright.....	Md.	Patent Office. A.B., 1905, New Windsor College.
Galleher, Parke Ashby.....	D. C.	3226 13th Street. University of Pennsylvania.
Gerard, Charles Wesley	D. C.	2212 Flagler Place. A.B., 1906, Ohio State University.
Gerhart, Herbert Benjamin.....	Pa.	1822 H Street.
Gill, Walter Josiah, Jr.....	Mass.	Patent Office. S.B., 1904, Massachusetts Institute of Technology.
Glover, Charles Carroll, Jr.....	D. C.	1703 K Street. B.A., 1910, Yale University.
Goode, Philip Burwell.....	D. C.	Patent Office. A.B., 1907, Harvard University.

Name.	Legal residence.	City address.
Gordon, Spencer	D. C.	3028 Q Street.
A.B., 1909, Princeton University.		
Guptill, Leon Clifton	Me	23 1st Street, N. E.
B.A., 1909, Colby College.		
Hawley, Charles Taft.....	Mass.	Patent Office.
B.S., 1898, M.E., 1908, Worcester Polytechnic Institute.		
Helms, Birch	Pa.	Union Trust Building.
B.A., 1909, Yale University.		
Herman, Morris D.....	Minn.	1312 Belmont Street.
Hilton, Charles Vanderbilt.....	Md.	2809 N Street.
Hoover, Frank Willard.....	D. C.	1824 16th Street.
Hoover, Joseph Raymond.....	D. C.	Hibbs Building.
Lafayette College.		
George Washington University.		
Houston, William Cannon, Jr....	Tenn.	House Office Building.
Hudson, Douglas Granville.....	Kans.	1843 Vernon Street.
Humason, Harris Monroe.....	Conn.	1445 Mass. Avenue.
A.B., 1909, Yale University.		
Hynson, Richard Washburn.....	D. C.	1335 N Street.
Washington and Lee University.		
Johnson, Elbert Culbreth.....	Wash.	The Royalton.
LL.B., 1910, Valparaiso University.		
Kause, Arthur John.....	D. C.	1905 Jackson St., N. E.
Koeppler, John Louis.....	Wis.	Headquarters, U. S. Marine Corps.
Kunkel, Frederick Eugene.....	Pa.	1717 S Street.
Lamb, William Ers.....	D. C.	1322 I Street.
B.S., 1909, Dartmouth College.		
Lazarus, I. Burt.....	Mass.	2026 F Street.
Lillie, Ray Dudley.....	Mich.	1429 N. Y. Avenue.
A.B., 1904, University of Michigan.		
Lilly, Scott Henry.....	Iowa	131 Maple St., Takoma Park, D. C.
B.A., 1897, Cornell College.		
Lindeman, Clarence Albert.....	Cal.	1226 11th Street.
Long, Franklin Samuel.....	Ill.	2206 Flagler Place.
Valparaiso University.		
Macfarland, Horace Greeley.....	D. C.	1727 F Street.
Graduate, 1891, United States Naval Academy.		
Mechlin, Ernest Frederick.....	D. C.	Patent Office.
B.S., 1907, The George Washington University.		
Miller, Herman	Nebr.	Patent Office.
B.S., 1898, Nebraska Wesleyan University.		
Miller, Lawrence A. Gale.....	Mass.	Patent Office.
A.B., 1908, Harvard University.		
Moakley, Harry Joseph.....	Conn.	1860 Columbia Road.
Ph.B., 1908, Yale University.		
Momsen, Richard Paul.....	Wis.	271 House of Representatives.
Moore, James Ballard.....	D. C.	1869 Columbia Road.
Munden, Ralph	Pa.	Patent Office.
M.E., 1906, Cornell University.		
Myers, John Dashiell.....	D. C.	1634 Riggs Place.

Name.	Legal residence.	City address.
Nairn, William Wallace, Jr.....	D. C.	901 Lawrence St., N. E.
Nettleton, Leigh Lanman.....	Utah	1822 H Street. University of Utah.
Newhouser, Roy Lyman Joseph....	D. C.	1707 21st Street. B.A., 1909, The George Washington University.
Oberlin, John Jay.....	Md.	Patent Office. A.B., 1901, Washington and Lee University.
Packard, Roscoe Milliken.....	D. C.	Patent Office. A.B., 1899, M.A., 1900, Western Reserve University.
Palais, Maurice	Mass.	149 A Street, N. E.
Patterson, Matthew Warren.....	Ark.	Dept. of Agriculture.
Peck, George Curtis Stanley.....	D. C.	House Office Building. Notre Dame University. George Washington University.
Rowland, Guy Edwin.....	Texas	1483 Newton Street.
Rush, Clifford Alvin.....	Kans.	Y. M. C. A.
Scanlon, Tom.....	S. D.	1700 15th Street.
Schnare, Lester Llewellyn.....	Ga.	Y. M. C. A.
Schreiber, Ernst Otto, Jr.....	D. C.	642 E Street, N. E. B.A., 1910, The George Washington University.
Shaw, Paul James.....	Pa.	Y. M. C. A.
Sheppard, Carl Dunkle.....	Ohio	Florence Court. Ph.B., 1902, Ohio University.
Smith, Jesse Bond.....	D. C.	Bureau of Corporations.
Smith, St. Clair.....	S. D.	1700 15th Street.
Sutton, Loyd Hall.....	Mass.	1323 Clifton Street. S.B., 1908, Massachusetts Institute of Technology.
Townsend, Wilson Lewis.....	D. C.	Kensington, Md.
Walker, John Earl.....	Mich.	1012 15th Street. B.S., 1907, Kalamazoo College. B.S., 1907, University of Chicago.
Watkins, Elton	D. C.	1004 11th Street. A.B., 1910, Washington and Lee University.
White, Richard Franklin.....	La.	Senate Office Building. A.B., 1910, The Tulane University of Louisiana.
Zeh, Henry William.....	D. C.	1357 Harvard Street.
Zirkle, Joseph Claiborne.....	Va.	635 F Street. The George Washington University.

MASTER OF LAWS.

Davenport, Lewis Howard.....	N. Y.	Chevy Chase, D. C. LL.B., 1910, The George Washington University.
Hampton, Wade Bruce.....	N. C.	1715 N Street. B.A., 1909, M.A., 1910, LL.B., 1910, Wake Forest College.
Sanderlin, George Bismark.....	N. C.	509 4th Street. A.B., 1899, A.M., 1900, Wake Forest College. LL.B., 1908, M.P.L., 1910, The George Washington University.

MASTER OF PATENT LAW.

Name.	Legal residence.	City address.
Babcock, Richard Earle.....	D. C.	707 G Street. LL.B., 1911, The George Washington University.
Burgess, Newton Albert.....	Ala.	McLachlen Building. B.S. in E.E., Alabama Polytechnic Institute. LL.B., 1911, National University Law School.
Dahn, Franz Frederick William....	Minn.	1502 Vermont Avenue. B.S., 1909, LL.B., 1911, The George Washington University.
Garrett, George Everett.....	Va.	Patent Office.

SPECIAL.

Barrows, Frank Elisha.....	Me.	738 Rock Creek Ch. Rd. LL.B., 1911, National University Law School.
Briggs, Stanford	Me.	Sigma Chi House.
Culbertson, William Smith.....	Kans.	The Woodward. B.A., 1907, College of Emporia. B.A., 1908, Yale University.
Davis, Meyer	D. C.	1201 Morse Street, N. E.
Dow, William John.....	Mo.	2020 N. Capitol Street.
Farmer, James Price.....	D. C.	154 A Street, N. E.
Gerhart, Herbert Benjamin.....	Pa.	1822 H Street. LL.B., February 1912, The George Washington University.
Giss, Richard, Louis.....	Wash.	1104 L Street.
Grove, Selbie D.....	Mich.	1332 B Street, S. E. LL.B., 1911, Georgetown University.
Haynes, Delos Garriott.....	Ill.	Patent Office. B.S., 1909, Massachusetts Institute of Technology. LL.B., 1911, National University Law School.
Hemrich, Ernest Edward.....	Wash.	1100 Vermont Avenue.
Humphreys, William Yerger.....	Miss.	House Document Room.
Hunt, John Stuart	Tex.	1100 Vermont Avenue. LL.B., 1910, National University Law School.
Lerch, John George.....	D. C.	1520 M Street.
Millenson, Joseph	Pa.	1024 17th Street.
Miller, William Cammack.....	D. C.	Woodlawn, Cleveland, Park, D. C. B.A., 1911, Yale University.
Pilcher, Dalton Jefferson.....	D. C.	216 G Street, N. E.
Pomeroy, Eugene C.....	N. Y.	The Dresden. Princeton University.
Purdy, Henry Klugh.....	S. C.	514 East Capitol Street.
Reif, Charles Caleb.....	Ohio	2620 13th Street. M.E., 1906, Ohio State University. LL.B., 1911, Georgetown University.
Rust, Breckenridge Cabell.....	D. C.	McGill Building.
Saum, Hugh Harris.....	D. C.	3311 Newark Street.
Scott, Foster Clyde.....	Ill.	1338 Newton Street.
Shaw, Kenneth Augustine.....	Mo.	638 5th Street, N. E. LL.B., 1908, LL.M., 1909, Georgetown University.
Shaw, Franklin Denwood.....	Pa.	1419 Chapin Street.

Name.	Legal residence.	City address.
Sinclair, Beverly Kennon.....	Va.	W. B. Hibbs & Co.
Smith, Charles Perley.....	Mass.	528 Sheperd Street.
A.B., 1902, Brown University.		
Smith, George Walter.....	Pa.	1700 15th Street.
Spencer, William Boyd	Pa.	519 L Street.
Steward, Roy Franklin.....	D. C.	822 Kennedy Street.
LL.B., 1911, National University Law School.		
Thomas, Joseph Neer.....	Ill.	1439 R. I. Avenue.
Warfield, Robert LeRoy.....	Md.	Rockville, Md.
Watson, Paul Herbert.....	Kans.	1322 Kearney St., Brook-
land, D. C.		
Whitney, Mark L.....	N. Y.	1349 Mass. Avenue.
Williams, Francis Edgar.....	D. C.	The Ontario.
Cornell University.		
Willis, George Bullock.....	Va.	R. F. D. No. 3, Alex-
andria, Va.		
Wilmer, Joseph Allison.....	Md.	3117 N Street.
Winkelhaus, William August....	Ill.	4226 8th Street.
Wright, Hamilton	Mont.	1722 F Street.

REVIEW.

Anderson, John Henry.....	Ohio	2110 Flagler Place.
LL.B., 1906, National University Law School.		
M.P.L., 1907, The George Washington University.		
Finkelstein, Henry Charles.....	D. C.	Union Trust Building.
LL.B., 1904, The George Washington University.		
Kemmerer, Charles Tilghman....	Iowa	The Newry.
Ph.B., 1903, State University of Iowa.		
LL.B., 1905, University of Michigan.		

Summary.

CANDIDATES FOR LL.B. DEGREE:

First year	93
Second year	81
Third year	84

Total 258

CANDIDATES FOR LL.M. DEGREE..... 3

CANDIDATES FOR M.P.L. DEGREE..... 4

SPECIAL 39

REVIEW 3

307

DUPLICATES 1

Total 306

DEPARTMENT OF MEDICINE.

Doctor of Medicine.

FIRST YEAR.

Name.	Legal residence.	City address.
Barnes, Forrest Price	Ohio	Casualty Hospital.
Basil, John William	Md.	937 K St., N. W.
Bingman, Carroll E.	Pa.	601 M St., N. W.
Bolton, Boyce Richardson	D. C.	3104 P St., N. W.
Bost, Thomas Creasy	N. C.	721 3d St., N. W.
Bradley, Jeter Carroll	N. C.	926 K St., N. W.
Castro, George Charles C.	Porto Rico.	226 North Capitol St.
Chamberlin, Frank Tenny	D. C.	1323 M St., N. W.
Craig, Ernest Arthur	Ill.	1228 Mass. Avenue.
Dempf, Martin Anthony	D. C.	13 4th St., N. E.
Donn, Frederick Y., Ph.D., Ph.C.	D. C.	1544 New Jersey Ave.
Fitzhugh, Clark Seals	D. C.	124 12th St., S. E.
Gentzkow, Cleon Joseph	Minn.	The Clifton, Apt. 2.
Gill, William Tignor, Jr.	D. C.	442 M St., N. W.
Green, Eric Steel	N. Y.	916 15th St., N. W.
Kenner, Albert Walton, Phar.D.	D. C.	1711 17th St., N. W.
Lear, Joseph	Conn.	G. W. U. Hospital.
Ligon, John Fulton	D. C.	135 13th St., N. E.
McNally, Thomas Henry, Jr.	R. I.	The Cumberland Apt.
McCray, Arthur Howard	Ohio	1322 Vermont Ave.
B.S.C., D.V.M.		
McClaren, James	Pa.	Y. M. C. A.
Marino, Charles George	N. Y.	The Alabama Apt.
Peters, David B.	Va.	Gov't Hospital for Insane
Putzki, Paul Stirling	D. C.	1862 California St.
Rosenblum, Howard	N. Y.	1103 H St., N. W.
Rowlson, Ira Alonzo	N. Y.	1215 K St., N. W.
Thompson, Richard Knight	D. C.	484 Maryland Ave., S.W.
Witten, Louis J.	N. Y.	Geo. Wash. University.
Williams, V. Blackstone	D. C.	3318 Reservoir Place.

SECOND YEAR.

Barger, Gervase James P.	Neb.	1104 15th St., N. W.
Bloom, Rudolph	Va.	Arlington, Va.
Downing, Perley Edwin	N. H.	3910 8th St., N. W.
Field, Fay	Pa.	1215 K St., N. W.
Harrison, Forrest Martin	Va.	818 A St., S. E.
Jova, Andrew Martin	Cuba	939 H St., N. W.
Kreitzer, James Graydon	Pa.	1435 9th St., N. W.

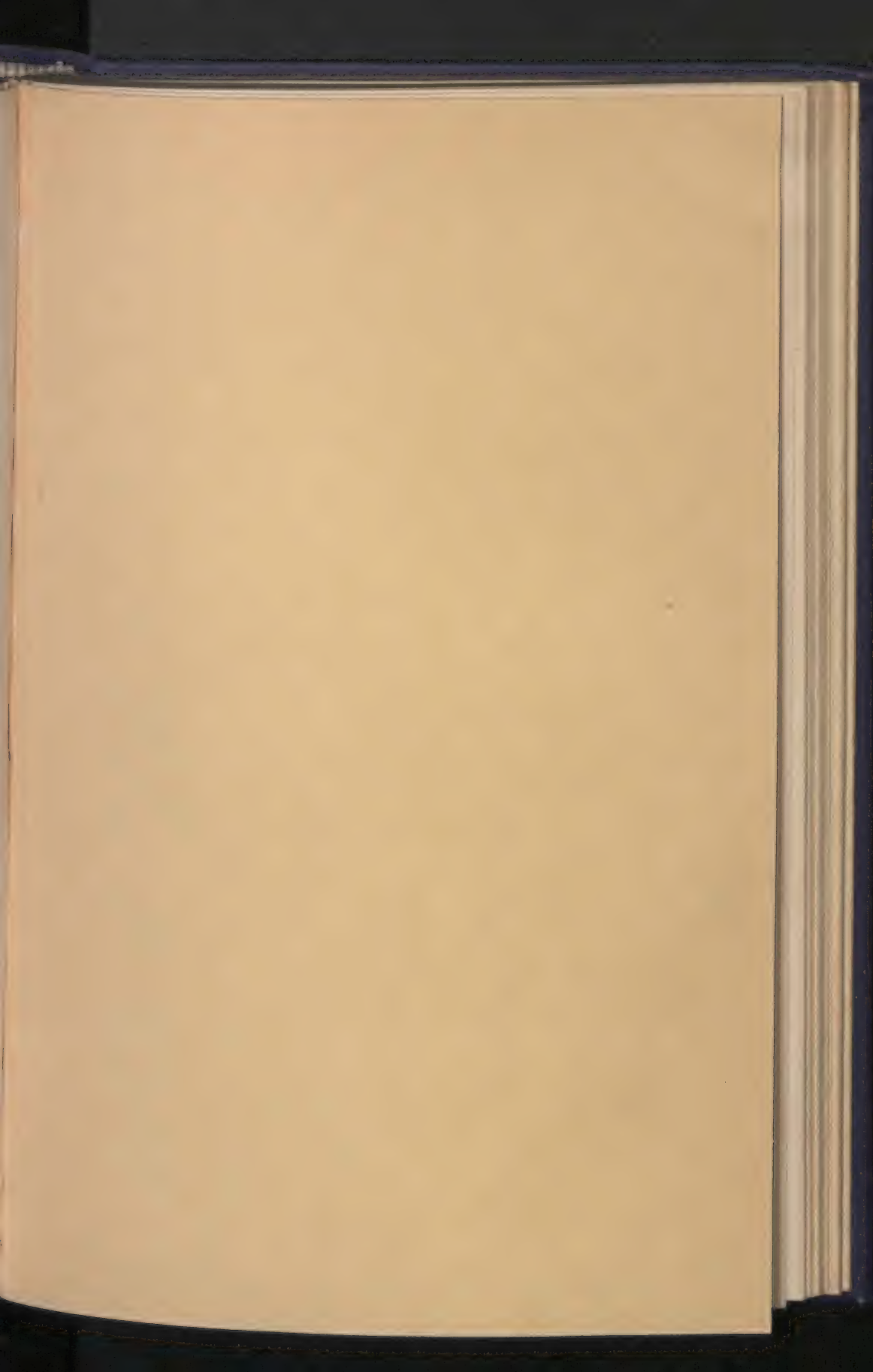
Miller, Thomas, Jr.	D. C.	1616 7th St., N. W.
Morris, Forrest V.	Okla.	3910 8th St., N. W.
Passer, William Frederick, Ph.C.	Minn.	Children's Hospital.
Sze, Tsannyoen Philip	China	2750 14th St., N. W.
Supplee, Eugene Deyerle	D. C.	311 A St., N. E.
Taylor, Chase	D. C.	1433 Belmont St.
Vaccaro, Leopold	N. Y.	5th and F Sts., N. W.

THIRD YEAR.

Name.	Legal residence.	City address.
Dimond, Harry Alfred	Conn.	821 13th St., N. W.
English, Merton Alden	D. C.	1758 Park Road.
English, Leonard H.	Pa.	1215 K St., N. W.
Fortier, Roy McLeay	Cal.	2310 19th St., N. W.
Henneberger, Josiah Baker	Md.	Casualty Hospital.
Riley, Albert Austin	Ohio	1375 Columbia Road.
Shea, George Marvin Waite	Conn.	3210 19th St., N. W.
Stout, Joseph Duerson, A.B.	D. C.	1435 9th St., N. W.
Turner, May, M.S., B.S.	D. C.	453 Irving St., N. W.

FOURTH YEAR.

Bailey, William Otis	S. C.	1215 N St., N. W.
Borden, Daniel LeRay	D. C.	Columbia Hospital.
Brewer, Gilbert Roscoe	Ill.	1312 23d St., N. W.
Bricker, William Henry, Jr.	N. J.	1215 K St., N. W.
Bricker, Sacks	D. C.	200 15th St., S. E.
Buck, George Henry	Maine	Geo. Wash. University.
Burgess, True S.	Ark.	734 12th St., N. W.
Burnett, Roy E., B.S.	Okla.	1322 Vermont Ave.
Calver, George Wehnes	D. C.	207 A St., S. E.
Castell, Louis B., B.S., Phar.D.	D. C.	1132 6th St., N. W.
Corbett, Sewall Munson	Va.	Arlington, Va.
Cram, Albert M.	Vt.	1611 13th St., N. W.
Dyer, John C.	Ohio	112 Tennessee Ave., N.E.
Eckhardt, John Carl	D. C.	1140 18th St., N. W.
Ellison, Everett M., A.B., A.M.	Tenn.	Garfield Hospital.
Fisher, Charles A.	Pa.	1307 R St., N. W.
Fitz-Hugh, William DeHart	Va.	Tuberculosis Hospital.
Gray, Augustus Clagett	Md.	Sibley Hospital.
Hall, Custis Lee	D. C.	1408 Chapin St., N. W.
Hunter, Oscar Benwood	Va.	1305 22d St., N. W.
Hunt, Isaac Burton	Tenn.	1422 N St., N. W.
Kane, Howard F., A.B.	Maine	G. W. U. Hospital.



Knott, Charles O.....	Va.	1006 Eye St., S. E.
Landis, Charles Caldwell.....	Cal.	1611 13th St., N. W.
LaGarde, Louis Anatole, Jr.....	D. C.	2624 Woodley Place.
Leonard, George Ferree, A.B.....	N. C.	813 12th St., N. W.
Luckett, George Sparr, A.B.....	Va.	The Rochambeau Apt.
Martin, Aaron Wise	Va.	1833 K St., N. W.
Milburn, Frank W., Phar.D.....	D. C.	Garfield Hospital.
Mooers, Harold Alonzo.....	D. C.	Takoma Park, D. C.
Pagan, Albert Elwood.....	D. C.	1965 Biltmore St.
Pitt, Richard V.....	Va.	30 Randolph Place, D. C.
Ralph, Charles Edward	Ill.	1422 N St., N. W.
Read, Effie A., Ph. D., A.B., A.M.	Mass.	1332 Eye St., N. W.
Read, Boyd Richard	D. C.	Emergency Hospital.
Rollings, John Adolph	W. Va.	G. W. U. Hospital.
Schaub, Gustavus Adolphus.....	Texas	Homeopathic Hospital.
Scarito, Nicholas Julius.....	D. C.	Francis Apartment.
Sloat, Jesse Irving	D. C.	23 First St., N. E.
Whitaker, Jay Atwood, B.A.....	Iowa	Garfield Hospital.

Summary.

First Year	29
Second Year	14
Third Year	9
Fourth Year	40
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DEPARTMENT OF DENTISTRY.

FIRST YEAR.

Name.	Legal residence.	City address.
Beebe, Ira Dow.....	Conn.....	1020 9th Street.
Bonseigneur, Camille Robespierre	D. C.....	1311 E Street.
Craig, James Stephen.....	Ore.	409 East Capitol Street.
Danemann, Samuel.....	D. C.....	439 9th Street.
Davis, Albert Wendell.....	D. C.....	218 F Street, N. E.
Donald Callar.....	Va.	418 Bond Building.
Forbes, William E.....	D. C.....	1334 Monroe Street.
Gardner, Albert P.....	N. Y.....	U. S. Naval Med. School.
Gidley, Harley Jeffers.....	N. Y.....	801 12th Street.
Ginsberg, Samuel B.....	D. C.....	1601 12th Street.
Golden, Edward Earl.....	Wyo.	1720 Newton Street
Hagen, Walter L.....	N. Y.....	501 2nd Street, N. E.
Haywood, Markley R.....	N. Y.....	Bureau of Standards.
King, Frank Collin.....	Canada.....	603 Howard Place.
King, Mansfield Venable.....	Va.	1323 F Street.
Lowry, Henry Clay.....	Pa.....	1325 H Street.
Mead, Sterling Vernon.....	Kans.....	206 12th Street, S. E.
Normyle, John A.....	Mass.....	523 11th Street.
Prendergast, Benj. Franklin.....	D. C.....	465 G Street.
Rice, William Isaac.....	W. Va.....	214 8th Street, S. W.
Roberts, Jasper Newton.....	Tenn.	517 B Street, N. E.
Robertshaw, George Laws.....	Ill.	1477 Newton St., Apt. 4.
Scala, Norman B.....	D. C.....	918 S. Carolina Av., S. E.
Schmidt, Carl Heisler.....	Mass.....	1741 G Street.
Walls, Harry Ernest.....	Ga.	148 N. Carolina Av., S. E.
Walze, Carl W.....	Md.	253 12th St., S. E.
White, Douglas Alfred.....	Mass.....	112 Fourth St., S. E.

SECOND YEAR.

Achsan, Samuel Charles.....	N. Y.....	1325 H Street.
Alley, Edward Crawford.....	Ky.....	1710 F Street.
Briggs, Elmer E.....	Pa.	1419 Ames Place, N. E.
Durfee, Claude.....	Ill.	3501 14th Street.
Eisenstein, Nathan.....	D. C.....	825 Vermont Ave.
Fansler, Orville Newton.....	Md.	Bethesda, Md.

Hardester, John S.....	D. C.....	912 I Street.
Hogan, Arnold Wilbur.....	Va.	929 G Street.
Maphis, Carl Burdette.....	Va.	829 Randolph Street.
Marstella, John P.....	Ill.	20 Quincy Place.
Rich, Charles W.....	Pa.	1006 K Street, N. E.
Silliman, Walter Brittin.....	Pa.	915 New York Ave.
Spillan, Henry Merle.....	N. Y.....	1319 Fairmont Street.
Williams Edward.....	N. Y.....	3025 11th Street.

THIRD YEAR.

Angelo, Stuart Miller.....	Va.	1108 L Street.
Bingman, Harry.....	Pa.	617 Morris St., N. E.
Camalier, Caleb Willard.....	D. C.....	28 Quincy Pl., N. E.
Fowler, Robert Clinton.....	D. C.....	710 10th Street, S. E.
Fradkin, Leon H.....	Russia	933 H Street.
Michaels, Melicu Manly.....	S. C.....	624 G Street, N. E.
Rubira, Angel Alfredo D.....	S. A.....	934 14th Street.
Ph.D., 1906, Colegio National Vicente Rocafuerte.		
White, George Elwood.....	Mass	1108 L Street.
Zepp, Washington Clarence...	N. J.....	Ogram's Drug Store,
Ph.G., 1904, Meico-Chisurgical College.		13th & Pa. Ave.

Summary.

First Year	27
Second Year	14
Third Year	9

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NATIONAL COLLEGE OF PHARMACY.

FRESHMAN CLASS.

Name.	Legal residence.	City address.
Adams, Joseph Granville.....	Va.....	Falls Church, Va.
Adams, William S.....	D. C.....	713 16th Street, N. E.
Avrutin, Robert.....	Russia.....	1204 7th Street.
Bayne, Thomas Albert.....	Va.....	207 S. Fairfax Street, Alexandria, Va.
Biggr, John G.....	D. C.....	621 Irving Street.
Blackiston, Beulah Lanette.....	D. C.....	1110 6th Street.
Boyd, Francis Cornelius.....	D. C.....	121 2nd Street, N. E.
Burgher, Vincent Alcis.....	N. J.....	1304 Park Road.
Carroll, John Mortimer.....	D. C.....	1442 Florida Avenue.
Crisp, Thomas Benton, Jr.....	D. C.....	638 E Street, N. E.

Donohoe, Walter J. A.....	N. Y.....	1808 1st Street.
Donahue, T. Francis.....	D. C.....	3345 P Street.
Fink, James Albert.....	D. C.....	1826 15th Street.
Hall, Earle Richardson.....	Iowa.....	1333 Columbia Road.
Heller, Theodore John.....	D. C.....	740 7th Street, S. E.
Kimball, Clarence Victor.....	N. C.....	1850 Park Road.
Koss, Flavelle E.....	D. C.....	1814 Calvert Street.
Lantz, Samuel Aaron.....	Va.....	520 3rd Street.
McCambridge, Joseph Austin.....	D. C.....	604 22nd Street.
Malone, William Wallace.....	D. C.....	305 Penn. Avenue, S. E.
Minkin, Abraham J.....	Russia.....	1501 1st Street.
Moose, George Kelley.....	N. C.....	2140 N Street.
Murphy, John Allen.....	Pa.....	301 Penn. Avenue, S. E.
LL.B., 1909, Georgetown University.		
Pettitt, Robert F.....	D. C.....	127 Heckman St, S. E.
Rosenberg, Louis Charles.....	Conn. F.....	709 P Street.
Shope, Raymond P.....	D. C.....	637 Maryland Ave., N. E.
Snyder, Frank Joseph.....	Ark.....	1000 24th Street.
Stephens, William Andrew.....	Ky.....	831 North Capitol Street.
Weil, Albert.....	D. C.....	Alexandria, Va.

JUNIOR CLASS.

Boyd, William Armstrong.....	D. C.....	2901 Georgia Avenue.
Chamblin, Ralph V.....	Va.....	Herndon, Va.
Dudley, Frederick Edwin, Jr.....	D. C.....	Takoma Park, D. C.
Kinsey, Raymond Daniel.....	D. C.....	459 G Street, S. W.
Kloczewski, Albert Marian.....	D. C.....	500 9th Street.
Maxwell, David Lander.....	Tenn.....	21st and G Streets.
Mix, Anna Elizabeth.....	Md.....	113 Maryland Ave., N. E.
Snider, Clyde E.....	Kans.....	24th and E Streets.
Tennyson, Irving A.....	Va.....	Alexandria, Va.
Umhau, John William.....	D. C.....	731 10th Street, S. E.
Wight, F. Leslie.....	Va.....	1008 F Street, N. E.
Wiley, Clarence Harvey.....	Va.....	1322 U Street.
Whitley, Lawrence B.....	N. C.....	26 Q Street.
Whittlesey, Wm. Henry Jr.....	Ohio.....	3407 Holmead Place.

SENIOR CLASS.

Anderson, Grace Levering.....	Mo.....	1801 Wyoming Avenue.
Barker, Charles W.....	Md.....	Rm. 322 P. O. Dept.
Dammeyer, Christian F. W., Jr.....	Md.....	11th and East Capitol Sts.
Day, Harold Lewis.....	D. C.....	1241 Euclid Street.
Elliott, Edna Taylor.....	Mich.....	1320 Mass. Ave., N. E.
Grubbs, Lindley Roy.....	Md.....	76 I Street.
Henry, Columbus Washington.....	N. C.....	22nd and N Streets.

- Hohberger, Samuel James.....Md.....35 Q Street, N. E.
 Morgan, Malcolm Ward.....D. C.....Bethseda, Md.
 Norton, William Harrison.....Wash.....136 6th Street, N. E.
 Schommer, John B., LL.B.,...Wis.....Union Building.
 LL.B., 1907, The George Washington University.
 Smyser, Bert Alexander.....Pa.....446 Kentucky Ave., S. E.
 Thyson, Leo Cromwell.....D. C.....1366 Columbia Road.

SPECIAL.

- Barnett, William Daniel.....Tex.....3845 Davenport Street.
 Bury, Irvin Francis.....D. C.....2200 Nichols Avenue.
 Embrey, Thaddeus J.....Va.....1215 East Capitol Street.
 Evans, Ethel Juliet.....D. C.....The Stafford, Lanier Pl.
 Kenner, Edwin Augustus.....D. C.....1711 17th Street.
 Mayo, Redmond.....N. C.....1115 5th Street.
 Neil, Joseph M.....Pa.....4314 8th Street.
 Tschiffely, Claude.....Md.....1207 Conn. Ave.
 Valaer, Peter, Jr.....N. C.....421 P Street.
 B.S., 1906, North Carolina Agricultural and Mechanical College.
 Waldman, Jacob.....Russia.....1353 East Capitol Street.

Summary.

Freshman	29
Junior	14
Senior	13
Special	10

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COLLEGE OF VETERINARY MEDICINE.

FIRST YEAR.

Name.	Legal residence.	City address.
Cashell, Irving M.....	Md.	2907 Sherman Avenue.
Chapin, Judson Kerfoot.....	Va.	1401 5th Street.
Colflesh, Joseph Harmon.....	Pa.	1320 W Street.
Cook, Parley Mere.....	Ohio	1303 R Street.
Crawford, Arthur Burdeck.....	Mass	1712 15th Street.
Essex, John James.....	Md.	Chevy Chase, Md.
Forbes, Samuel Dexter.....	Va.	2115 14th Street.
Gantz, Claudius R.....	D. C.....	1206 D Street.
Getz, Harry Rohrer.....	Pa.	1303 R Street.
Hayes, Jesse.....	N. J.....	1325 New York Avenue.
Kelser, Raymond Alexander....	D. C.....	231 14th Street, N. E.
Miller, Howard Sydnor.....	Va.	The Fredonia.
Munro, Joseph Briggs.....	R. I.....	2707 11th Street.
Reynolds, Francois Hue K.....	Wis.	240 2nd Street, N. E.

Shillinger, Jacob Edward.....Md.1330 W Street.
 Thigpen, Claude.....Ala.1303 R Street.
 Trigg, William S.....Va.2116 Flagler Place.
 Whitney, Clifford Caswell.....Mass1128 B Street, N. E.

SECOND YEAR.

Behney, Jacob E.....Pa.2115 14th Street.
 Gillette, George H.....Kans.26 Iowa Circle.
 Grenfell, Frederick A.....D. C.1916 H Street.
 Hargett, Ernest George.....N. C.310 3rd Street.
 Hooker, William Anson.....Mass1829 G Street.
 Lambert, Fred W.....Md.1321 Florida Avenue.
 McLaughlin, Edward J.....Ill.1400 Chapin Street.
 Morcock, Julius E.....Ga.2115 14th Street.
 Nicol, James Buchanan.....Va.1444 W Street.
 Potteiger, Clarence B.....Pa.1400 Chapin Street.

THIRD YEAR.

Ayers, Admiral Taw.....D. C.1416 U Street.
 Benjamin Frank Herbert.....D. C.1822 16th Street
 Buchanan, Joseph Wesley.....D. C.901 M Street.
 Clayton, Harry Thomas.....Mo.1430 V Street.
 Earl, Warren Becker.....N. Y.1420 Q Street.
 Fake, Charles Thompson.....N. Y.1427 R Street.
 Hicks, Greydon St. Clair.....Mich.Govt. Hosp. for Insane.
 Hodge, Joseph Ernest.....Tenn.1444 W Street.
 Holt, Campbell Lloyd.....Texas.....R. 259, War Department.
 Lochboehler, Harry Aloysius.....Nebr.1320 W Street.
 McClure, Floyd Ivan.....Pa.1408 Belmont Street.
 McClure, Fred Kussart.....Pa.1408 Belmont Street.
 Marsh, Hadleigh.....D. C.1882 Monroe Street.
 Norris, James Walter.....Md.1924 17th Street.
 Perrin, Edwin Ruthvin.....Mich.1320 W Street.
 Sanchez-Lloveras, Carlos.....Argentina ..2504 14th Street.
 Smith, Jesse Karl.....Ariz.1311 13th Street.
 Stahl, Benton Mehrling.....D. C.312 12th Street, S. W.

Summary.

First Year	18
Second Year	10
Third Year	18

GEOGRAPHICAL DISTRIBUTION.

Alabama	7	North Dakota.....	1
Arizona	2	Ohio	35
Arkansas	4	Oklahoma	9
California	8	Oregon	2
Colorado	4	Pennsylvania	72
Connecticut	11	Rhode Island.....	4
Delaware	4	South Carolina.....	9
District of Columbia.....	490	South Dakota.....	6
Florida	3	Tennessee	12
Georgia	5	Texas	15
Idaho	2	Utah	11
Illinois	32	Vermont	5
Indiana	16	Virginia	75
Iowa	24	Washington	11
Kansas	14	West Virginia.....	7
Kentucky	11	Wisconsin	17
Louisiana	3	Wyoming	3
Maine	14	Argentina	1
Maryland	59	Austria	1
Massachusetts	41	Brazil	1
Michigan	16	Canada	3
Minnesota	17	China	6
Mississippi	6	Cuba	1
Missouri	21	Ecuador	1
Montana	2	France	2
Nebraska	16	Germany	4
New Hampshire.....	7	Philippine Islands.....	4
New Jersey.....	19	Porto Rico.....	4
New Mexico.....	1	Russia	6
New York	65	Turkey	1
North Carolina	17		

GENERAL SUMMARY.

TEACHING STAFF. (In many instances members of the Teaching Staff give only part time to the University):

Professors	65
Associate Professors.....	11
Assistant Professors.....	19
Associates, Lecturers, Instructors, Demonstrators, and Assistants	91
Total	186

STUDENTS REGISTERED IN THE UNIVERSITY, 1911-12.

DEPARTMENT OF ARTS AND SCIENCES:

Faculty of Graduate Studies.....	76
Columbian College.....	335
College of Engineering and Mechanic Arts.....	153
College of the Political Sciences.....	91
Teachers College.....	84

Duplicates	739
	6

733

PROFESSIONAL DEPARTMENT:

Department of Law.....	306
Department of Medicine.....	92
Department of Dentistry.....	50

448

ASSOCIATED COLLEGES:

National College of Pharmacy	66
College of Veterinary Medicine	46

112

Total	1203
Duplicates	23

Total	1270
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DEGREES CONFERRED

DEGREES CONFERRED AT FALL CONVOCATION, 1911.

IN COURSE.

Doctor of Philosophy.

Francis Xavier Zerhusen, Kentucky.
A. B., 1906, Notre Dame University.

Bachelor of Arts.

Tien Yuen Chang, China.
Charles Edward Hiatt, North Carolina.

Master of Laws.

Wade Bruce Hampton, North Carolina.

Master of Patent Law.

Richard Earle Babcock, District of Columbia.
Newton Albert Burgess, Alabama.
Franz Frederick William Dahn, Minnesota.

Bachelor of Law.

John Dashiell Myers, District of Columbia.

Doctor of Medicine.

Hagop Davidian, Asia Minor.
Fujio Mitsuyoshi, Japan.
Timothy Graham Williams, North Carolina.

DEGREES CONFERRED AT WINTER CONVOCATION, 1912.

IN COURSE.

Master of Science.

Philip Castleman, Massachusetts.
B. S., 1906, Harvard University.
M.D., 1911, The George Washington University.

Bachelor of Arts.

Selwyn Kennedy Cockrell, District of Columbia.
George Allen Sanborn, Wisconsin.
Irving Paul Taylor, District of Columbia.

Bachelor of Science in Civil Engineering.

William Curtis Cooley Ball, Delaware.

Master of Patent Law.

George Everett Garrett, Virginia.

Bachelor of Laws.

David Alphonse Baer, District of Columbia.

Henry Aubrey Cox, Tennessee.

Herbert Benjamin Gerhart, Pennsylvania.

Bachelor of Law.

Philip Burwell Goode, District of Columbia.

Doctor of Dental Surgery.

Richard Aronson, New York.

DEGREES CONFERRED AT COMMENCEMENT, 1912**HONORARY.****Doctor of Laws.**

Charles Edward Munroe.

James Brown Scott.

IN COURSE.**Doctor of Philosophy.**

Alton Lewin Kibler, Virginia.

A. B., 1904, Randolph-Macon College.

M. S., 1909, The George Washington University.

William John McCaughey, Pennsylvania.

B. S., 1906, University of Pennsylvania.

Master of Arts.

Edith Blinston Lowe, District of Columbia.

A. B., 1911, The George Washington University.

John Owen Rankin, Missouri.

A. B., 1904, Tarkio College.

Master of Arts and Master's Diploma in Education.

Robert Lee Haycock, District of Columbia.

A. B. and Teachers Diploma, 1911, The George Washington University.

Electrical Engineer.

Russell Barker Munroe, District of Columbia.

B. S., 1911, University of Pennsylvania.

Mechanical Engineer.

Koy Franklin Carthy, District of Columbia.
B. S., in M. E., 1911, The George Washington University.

Bachelor of Arts.

Hans Wilhelm Ferdinand Anderson, Germany.
Roger Sherman Gates Boutell, District of Columbia.
Minnie Hulda Brakhagen, District of Columbia.
Edith Katherine Cash, District of Columbia.
(With distinction)
Mabel Louise Chapin, District of Columbia.
Paul Tinsley Cheek, District of Columbia.
Herman Blaney Chubb, District of Columbia.
Mary Veronica Dempsey, New York.
Moncena Miles Dodge, California.
Ralph McNeal Dunbar, Maryland.
(With distinction)
Charles Merritt Earl, Wisconsin.
Walter Scott Eatherly, Tennessee.
Jeanette Geschickter, District of Columbia.
(With distinction)
Walter Edgar Hancock, Texas.
Enid Marian Hobbs, Canada.
(With distinction)
Maude Lillian Jackson, District of Columbia.
Ramon I. Janer, Porto Rico.
Eleanor Isabelle Jones, District of Columbia.
Harold Keats, Pennsylvania.
Minor Everet McChristie, Ohio.
Joseph McCormack, Pennsylvania.
James Lewis Moneyway, Alabama.
Kate Carroll Moore, District of Columbia.
(With distinction)
Katharine Mitchell Newbold, Maryland.
(With distinction)
Andrew Bryant Reavis, Tennessee.
Anna Lorette Rose, Pennsylvania.
Paul Vere Roundy, New York.
Dorothy Archibald Smallwood, District of Columbia.
Katherine Strong Summy, District of Columbia.
(With distinction)

Bachelor of Arts and Teacher's Diploma.

Louise Berry, District of Columbia.
Ellen Barksdale Bouldin, Virginia.
Hellen Gilliss, District of Columbia.
Estelle Annette Goodmin, District of Columbia.

Alice Elma Haslup, District of Columbia.
Helen Gertrude Rollins, Michigan.
Edward Wiest, Pennsylvania.

Teacher's Diploma.

Mary Ann Connelly, District of Columbia.
B.S., 1891, The George Washington University.
Helen Marie Evans, District of Columbia.
A.B., 1908, The George Washington University.

Bachelor of Science in Chemistry.

Ralph Wylie Frey, District of Columbia.
George Traver Harrington, Vermont.
B.S. in Agri., 1909, University of Vermont.
Elmer Stewart, District of Columbia.
George Pelham Walton, Indiana.

Bachelor of Science in Architecture.

Albert Lewis Harris, District of Columbia.

Bachelor of Science in Civil Engineering.

Howard Paul Bayly, District of Columbia.
William Shelton Gordon Dulin, District of Columbia.
Robert Horace Harrison, District of Columbia.
(With distinction)
Robert John Potbury, District of Columbia.
(With distinction)
Joseph Addison Preston Scott, Jr., District of Columbia.
John Daniel Stuwe, Minnesota.
Frank Veihmeyer, District of Columbia.

Bachelor of Science in Electrical Engineering.

Curtis Edgar McCalip, District of Columbia.
Howard Palmer Safford, District of Columbia.
(With distinction)

Bachelor of Science in Mechanical Engineering.

Hugh Gates Boutell, District of Columbia.
George Poole, District of Columbia.

Master of Diplomacy.

George Grauman Cohen, Indiana.
A.B., 1907, I.L.B., 1907, University of Indiana.
Harold Barlow Quarton, Iowa.
Ph.B., 1908, Grinnell College.

Bachelor of Laws.

- Charles Andersen, Texas.
 Azro Lucien Barber, New York.
 A.B., 1907, Syracuse University.
 Clarence Leroy Bullion, Ohio.
 Edward Richard Callister, Utah.
 William Edward Davis, Maryland.
 A.B., 1907, Western Maryland College.
 Parker Van Patten Dodge, District of Columbia.
 S.B., 1907, Massachusetts Institute of Technology.
 Walter Grafton Dunlop, District of Columbia.
 B.S., 1909, Princeton University.
 Parke Ashby Galleher, District of Columbia.
 Charles Carroll Glover, Jr., District of Columbia.
 A.B., 1910, Yale University.
 Spencer Gordon, District of Columbia.
 (With distinction)
 A.B., 1909, Princeton University.
 Charles Vanderbilt Hilton, Maryland.
 Joseph Raymond Hoover, District of Columbia.
 William Cannon Houston, Jr., Tennessee.
 Harris Monroe Humason, Connecticut.
 A.B., 1909, Yale University.
 Richard Washburn Hynson, District of Columbia.
 John Louis Koeppler, Wisconsin.
 (With distinction)
 William Ers Lamb, District of Columbia.
 B.S., 1909, Dartmouth College.
 Clarence Albert Lindeman, California.
 Horace Greeley Macfarland, District of Columbia.
 (With distinction)
 Graduate, 1891, United States Naval Academy.
 Herman Miller, Nebraska.
 (With distinction)
 B.S., 1898, Nebraska Wesleyan University.
 Richard Paul Momsen, Wisconsin.
 Leigh Lanman Nettleton, Utah.
 Matthew Waren Patterson, Arkansas.
 Tom Scanlan, South Dakota.
 Ernst Otto Schreiber, Jr., District of Columbia.
 (With distinction)
 A.B., 1910, The George Washington University.
 Carl Dunkle Sheppard, Ohio.
 Ph.B., 1902, Ohio University.
 Jesse Bond Smith, District of Columbia.
 St. Clair Smith, South Dakota.
 Richard Franklin White, Louisiana.
 A.B., 1910, Tulane University of Louisiana.

Bachelor of Law.

Walter William Burns, New York.

M.E., 1906, Cornell University.

Charles Arthur Denman, Nebraska.

Leon Clifton Gupill, Maine.

A.B., 1909, Colby College.

Douglas Granville Hudson, Kansas.

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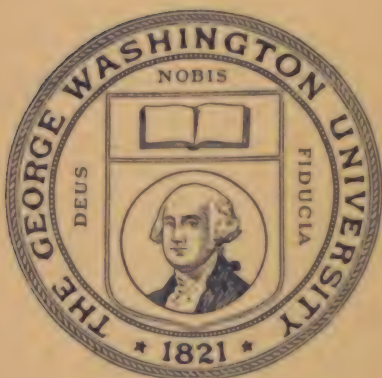
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VOLUME XI

NUMBER 2

The George Washington University Bulletin

TREASURER'S REPORT
1911-1912



PUBLISHED BY THE UNIVERSITY AT WASHINGTON, D. C., IN MARCH,
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The
George Washington University
Bulletin

OCTOBER, 1912

REPORT OF THE TREASURER

WASHINGTON, D. C.
PRESS OF JUDD & DETWEILER, INC.
1912

Report of the Treasurer.

OCTOBER 9, 1912.

The Board of Trustees of The George Washington University.

GENTLEMEN: I have the honor to submit herewith a report showing in detail the financial condition of the University at the close of the fiscal year 1911-1912, certified as correct by The American Audit Company, as required by Article XI of the By-Laws of the University.

The results of the investigation by The Department of Justice, showing an impairment of the endowment principal of \$317,620.62 and endowment income of \$24,394.40, were entered on the books of the University during the past year. This total impairment of \$342,015.02 is shown as a liability on the balance sheet (Exhibit A).

The invested endowment funds, revised on a basis of book value, amount to \$123,061.27 (Schedule 3). The uninvested endowment amounts to \$234.64, a total of live endowments of \$123,295.91.

Endowments were received during the years as follows:

Tree Fund, addition taken from the income to make the fund an even \$10,000 ordered by the Board of Trustees.....	\$285.00
Congressional Professorship of English Fund, sale of Congressional Grant Land, and invested for Professorship Fund	1,989.75
Law Endowment, investment of 1910-1911 surplus.....	2,028.75
Total	\$4,303.50

The excess of assets over liabilities in the general account (Exhibit A) amounts to \$178,170.15.

The report of the University Hospital (Exhibit O) shows a surplus for the year of \$3,895.45, which includes accounts receivable from pay patients of \$2,035.31. The wisdom of carrying as an asset of the University unpaid accounts of the Hospital is open to question, in view of the fact that only a fraction of these accounts are collectible.

The receipts and disbursements for the year (Schedule 4) are summarized as follows:

Receipts.

Current Receipts, Educational Departments, and General Expense.....	\$110,255.03
Receipts from Hospital, Current.....	49,304.01
Accounts Receivable, Hospital and Students...	2,406.00
Contributions, General Fund.....	20,729.34
Cash Balances, August 31, 1911.....	3,796.52
	<hr/>
	\$186,490.90

Disbursements.

Current Disbursements, Educational Departments, and General Expense.....	\$115,160.13	
Disbursed for Hospital, Current.....	48,088.48	
G Street Installation.....	8,787.26	
Investment of Law Surplus.....	2,067.09	
Note Paid at Bank.....	3,000.00	
Accounts Payable, General, from 1910-1911....	4,658.80	
Accounts Payable, Medical, from 1910-1911....	218.00	
Medical, Dental, and General Equipment.....	953.49	
		<u>\$182,933.25</u>

Cash Balances, August 31, 1912.....	<u>\$3,557.65</u>
-------------------------------------	-------------------

The balances, aggregating \$3,557.65, are available for the following departments:

Hospital	\$1,360.14	
Medical and Dental Surplus.....	1,448.83	
General Fund.....	748.68	
		<u>\$3,557.65</u>

I am gratified to report that throughout the year the business of the University was conducted without financial stringency, and that the credit of the institution was very materially raised.

Very respectfully yours,

CHARLES W. HOLMES,
Treasurer.

Report of The American Audit Company

OCTOBER 7, 1912

GENTLEMEN: We have examined the accounts and records of THE GEORGE WASHINGTON UNIVERSITY for the year ended August 31, 1912, after entering upon the books the facts shown by the Attorney-General's report as of August 31, 1910, and submit herewith exhibits and schedules as follows:

EXHIBIT "A"—BALANCE SHEET,

As at August 31, 1912.

"B"—SURPLUS ACCOUNT,

As at August 31, 1912.

"C"—DEPARTMENT OF MEDICINE SURPLUS,

As at August 31, 1912.

"D"—DEPARTMENT OF LAW SURPLUS,

As at August 31, 1912.

"E"—REVENUE ACCOUNT,

For the year ended August 31, 1912.

"F"—SCHOOL OF GRADUATE STUDIES,

For the year ended August 31, 1912.

"G"—COLLEGE OF ARTS AND SCIENCES,

For the year ended August 31, 1912.

"H"—COLLEGE OF ENGINEERING,

For the year ended August 31, 1912.

"I"—COLLEGE OF POLITICAL SCIENCES,

For the year ended August 31, 1912.

"J"—TEACHERS COLLEGE,

For the year ended August 31, 1912.

"K"—DEPARTMENT OF LAW,

For the year ended August 31, 1912.

"L"—DEPARTMENT OF MEDICINE,

For the year ended August 31, 1912.

"M"—DEPARTMENT OF DENTISTRY,

For the year ended August 31, 1912.

"N"—ARTS AND SCIENCE LIBRARY,

For the year ended August 31, 1912.

"O"—UNIVERSITY HOSPITAL,

For the year ended August 31, 1912.

"P"—SUMMARY OF ENDOWMENT FUNDS,

As at August 31, 1912.

"Q"—ENDOWMENT FUND INCOME AND EXPENSE,

For the year ended August 31, 1912.

SCHEDULE "1"—ENDOWMENT FUNDS AND IMPAIRMENT OF INCOME,

As at August 31, 1910.

"2"—ENDOWMENT FUNDS REPRESENTED BY INVESTMENTS,

As at August 31, 1912.

"3"—ENDOWMENT FUND INVESTMENTS,

As at August 31, 1912.

"4"—STATEMENT OF CASH RECEIPTS AND PAYMENTS,

For 1911-1912.

CASH: \$4,557.65.

We counted the cash on September 9, 1912, and found it in accordance with the balance shown by the books.

ACCOUNTS RECEIVABLE: \$5,581.51.

The Accounts Receivable shown by Exhibit "A" consist of amounts due from students in the various departments and amounts due from patients in the hospital for the year 1911-1912, without any reserve to cover uncollectible accounts.

The Endowment Income Receivable, amounting to \$480.63, consists of income applicable to the General Expenses of the University for the year ended August 31, 1912.

LIBRARY BOOKS: \$37,000.00.

This account includes the Library books shown by the Attorney-General's Report as at August 31, 1910.

EQUIPMENT: \$73,738.47.

This account includes the Equipment shown by the Attorney-General's Report as of August 31, 1910, and all equipment purchased since that date for the departments or the University itself.

DEPRECIATION:

There was no depreciation charged off either Library Books or Equipment, owing to the lack of information showing their real value. A complete inventory should be made of all books and equipment owned by the University.

DEPARTMENT OF MEDICINE SURPLUS: \$5,818.63.

This account includes the surplus of the Hospital, Department of Medicine, and the Department of Dentistry on August 31, 1912, as shown by Exhibit "C."

DEPARTMENT OF LAW SURPLUS: \$295.01.

This account includes the surplus of the Law Department for the year ended August 31, 1911, after the purchase of bonds creating the Law Department Fund, as shown by Exhibit "D."

This account was not affected by operations of the Law Department for the year 1911-1912, as the loss on this Department was charged against the University as an offset to the contribution by this Department to the General Expenses of the University, under instruction of the President of the University.

SURPLUS ACCOUNT: \$178,070.15.

The basis of this account constitutes the excess of the Assets over Liabilities and the Impairment of Endowment Funds, as shown by the Attorney-General's report as at August 31, 1910.

This account has been constructed on that basis and brought up to August 31, 1912, as shown by Exhibit "B."

NET INCOME:

The Net Income from all Departments and the University, exclusive of the Hospital, was \$8,738.63 for the year ended August 31, 1912, as shown by Exhibit "E."

ENDOWMENT FUNDS AND IMPAIRMENT OF ENDOWMENT FUNDS AND INCOME:

The Funds and Income shown by Schedule No. 1 constitute the impairment of both Principal and Income shown by the Attorney-General's Report as of August 31, 1910, and accepted by the Committee appointed by the Board of Trustees to pass upon the above report.

We beg to express our appreciation of the courtesies extended us during the course of our audit.

Respectfully submitted,

THE AMERICAN AUDIT COMPANY,

[SEAL.]

By OTTO LUEBKERT,

Resident Vice-President.

Approved:

F. W. LAFRENTZ, *President.*

Attest:

THEO. COCHEN, JR., *Secretary.*

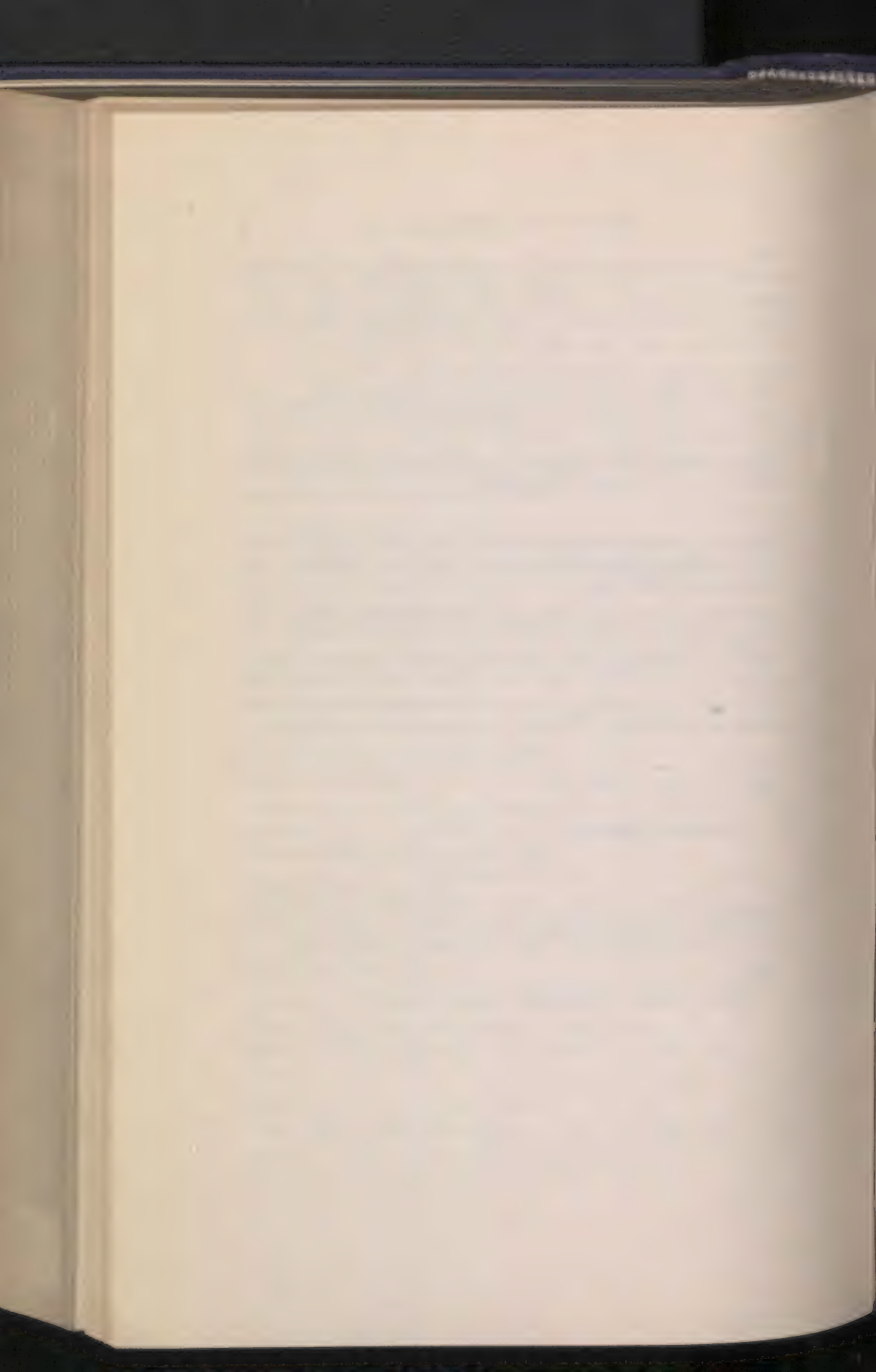


EXHIBIT "A."

BALANCE SHEET.

As at August 31, 1912.

<i>Assets.</i>		<i>Liabilities.</i>	
Cash:		Trust Notes:	
In Bank.....	\$3,557.65	Notes secured by Deed of Trust on 2023 G Street.....	\$32,500.00
Petty Cash Fund, University.....	500.00	Liability for Impairment of Endowment Fund	
Petty Cash Fund, Hospital.....	500.00	Principal and Accumulated Income, Schedule 1.	342,015.02
		Department of Medicine Surplus:	
Accounts Receivable:		As per Exhibit "C".....	5,818.63
Students' Ledger, all Departments, 1910-11, 1911-12.....	\$3,065.47	Department of Law Surplus:	
Hospital Accounts, 1911-12.....	2035.31	As per Exhibit "D".....	205.01
Endowment Income Receivable Funds		Surplus Account:	
for General Purposes.....	480.63	As per Exhibit "B".....	178,070.15
J. F. McCambridge & Co.....	.10		
Library Books.....	5,581.51		
Equipment.....	37,000.00		
Insurance:	73,738.47		
Withdrawal Value of Perpetual Insurance Policies.....	1,721.25		
Real Estate:			
Medical Lot and Building.....	\$403,599.93		
2023 G Street.....	32,500.00		
	436,099.93		
	<u>\$558,698.81</u>		<u>\$558,698.81</u>

EXHIBIT "B."

SURPLUS ACCOUNT.

As at August 31, 1912.

Balance, Surplus Account, as at September 1, 1911..... \$167,806.65

Add:

Contribution to \$15,000 Fund during year ended August 31, 1912 (contribution applicable to payments made from General Funds liquidating Accounts Payable prior to August 31, 1910)..... 1,559.33

Net Income of University for the year ended August 31, 1912, transferred from Revenue Account, Exhibit "E" 8,738.63

Total \$178,104.61

Less:

Net Income on Departments of Medicine and Dentistry for the year ended August 31, 1912, transferred to Department of Medicine Surplus, Exhibit "C"..... 34.46

Balance August 31, 1912..... \$178,070.15

EXHIBIT "C."

DEPARTMENT OF MEDICINE SURPLUS.

As at August 31, 1912.

Balance as at September 1, 1911 (after adjustments)..... \$1,888.72

Add:

Net Income on Department of Dentistry for the year ended August 31, 1912, Exhibit "M"..... \$1,142.14

Less:

Net Loss on Department of Medicine for the year ended August 31, 1912, Exhibit "L"..... 1,107.68

Net Income from the Departments of Dentistry and Medicine, transferred from Surplus Account, Exhibit "B" 34.46

Net Income on University Hospital for the year ended August 31, 1912, transferred from University Hospital Account, Exhibit "O"..... 3,895.45

\$5,818.63

REPORT OF THE TREASURER.

II

EXHIBIT "D."

DEPARTMENT OF LAW SURPLUS.

As at August 31, 1912.

Balance as at September 1, 1911..... \$2,362.10

Less:

Transfer to Endowment Funds (Purchase of
Bonds to establish the Law Department Fund) \$2,028.75

Payment of accrued interest on above bonds..... 38.34

2,067.09

Balance Surplus August 31, 1912..... \$295.01

EXHIBIT "E."
REVENUE ACCOUNT.
For the Year ended August 31, 1912.

<i>Expenses.</i>		<i>Income.</i>	
Department of Law, Exhibit "K".....	\$760.07	School of Graduate Studies, Exhibit "F".....	\$2,006.43
Department of Medicine, Exhibit "L".....	1,107.68	College of Arts and Science, Exhibit "G".....	4,716.29
Teachers College, Exhibit "P".....	19.35	College of Engineering, Exhibit "H".....	2,467.30
Arts and Science Library, Exhibit "N".....	113.59	College of Political Science, Exhibit "I".....	3,684.82
Administration Expenses:		Department of Dentistry, Exhibit "M".....	1,142.14
Salaries, Clerk Hire, Etc.....	\$9,009.00	Contributions:	
Stationery and Printing.....	1,991.80	General Expense 1910 to 1912 Fund... \$8,370.01	
Advertising.....	710.00	Maintenance Fund 1912-1916.....	10,800.00
Postage.....	483.60	General Expense from Departments:	
Telephone.....	498.04	Department of Law..... \$2,500.00	
Auditing.....	600.00	Department of Medicine.. 500.00	
Commencement Expenses, Etc.....	984.27	Department of Dentistry.. 500.00	
Insurance and Bonds.....	272.67	Hospital..... 4,000.00	
Taxes.....	301.32		
Rent of Storage Building.....	180.00		
University Hall:			
Wages..... \$2,254.63		Income from Investments:	23,170.01
Rent..... 2,409.99		Endowment for General Purposes, Exhibit "Q".	1,801.88
Heating and Lighting..... 1,551.23		Income from Other Sources:	
Supplies and Expense..... 772.71		Graduation Fees..... \$1,860.00	
		Bonding Fees..... 72.00	
		Rent of Fraternity Rooms..... 319.00	
		Matriculation Fees:	
		National School of Pharmacy..... \$150.00	
		College of Veterinary Med. 75.00	
			225.00
		Miscellaneous..... 32.50	
		Bank Interest.....	2,508.50
			144.73
			\$41,942.10

EXHIBIT "F."

SCHOOL OF GRADUATE STUDIES.

For the Year ended August 31, 1912.

Income.

Tuition	\$4,266.25	
Matriculation	85.00	
Laboratory	290.53	
		<hr/>
		\$4,641.78

Expenses.

Salaries	\$2,622.50	
Stationery and Printing.....	6.50	
Miscellaneous	6.35	
		<hr/>
		2,635.35

Net Income, transferrel to Revenue Account, Exhibit
"E" \$2,006.43

EXHIBIT "G."

COLLEGE OF ARTS AND SCIENCES.

For the Year ended August 31, 1912.

Income.

Tuition	\$20,378.54	
Matriculation	758.00	
Laboratory	1,737.91	
Contributions	100.00	
Miscellaneous	2.00	
		<hr/>
		\$22,976.45

Expenses.

Salaries	\$16,282.50	
Stationery and Printing.....	106.01	
Laboratory	1,818.78	
Miscellaneous	52.87	
		<hr/>
		18,260.16

Net Income, transferred to Revenue Account, Exhibit
"E" \$4,716.29

THE GEORGE WASHINGTON UNIVERSITY.

EXHIBIT "H."

COLLEGE OF ENGINEERING.

For the Year ended August 31, 1912.

Income.

Tuition	\$11,670.00
Matriculation	200.00
Laboratory	638.65
	<hr/> \$12,508.65

Expenses.

Salaries	\$9,820.99
Stationery and Printing.....	29.70
Laboratory	133.24
Miscellaneous	57.42
	<hr/> 10,041.35

Net Income, transferred to Revenue Account, Exhibit
 "E" \$2,467.30

EXHIBIT "I."

COLLEGE OF POLITICAL SCIENCES.

For the Year ended August 31, 1912.

Income.

Tuition	\$3,992.50
Matriculation	264.00
Interest	9.65
Contributions	9,800.00
	<hr/> \$14,066.15

Expenses.

Salaries	\$7,574.00
Stationery and Printing.....	32.45
Rent	1,800.00
Janitors	300.83
Fuel	144.35
Light	119.10
Miscellaneous	110.60
	<hr/> 10,081.33

Net Income, transferred to Revenue Account, Exhibit
 "E" \$3,984.82

REPORT OF THE TREASURER.

15

EXHIBIT "J."

TEACHERS COLLEGE.

For the Year ended August 31, 1912.

<i>Income.</i>	
Tuition	\$3,455.90
Matriculation	147.00
Laboratory	37.00
	<hr/>
	\$3,639.90
<i>Expenses.</i>	
Salaries	\$3,610.00
Stationery and Printing.....	17.75
Miscellaneous	31.50
	<hr/>
	3,659.25
Net Loss, transferred to Revenue Account, Exhibit "E"	\$19.35

EXHIBIT "K."

DEPARTMENT OF LAW.

For the Year ended August 31, 1912.

<i>Income.</i>	
Tuition	\$25,688.75
Matriculation	551.00
Library	872.00
Contributions for Prizes.....	50.00
Income from Endowments.....	100.00
Miscellaneous	8.80
	<hr/>
	\$27,270.55
<i>Expenses.</i>	
Salaries	\$20,436.66
Rent	2,400.00
Stationery and Printing.....	377.71
Advertising	662.66
Library	777.25
Janitors	287.00
Light	222.25
Prizes	55.00
Transferred to General Funds.....	2,500.00
Miscellaneous	312.09
	<hr/>
	28,030.62
Net Loss, transferred to Revenue Account, Exhibit "E"	\$760.07

EXHIBIT "L."

DEPARTMENT OF MEDICINE.

For the Year ended August 31, 1912.

Income.

Tuition	\$11,252.61
Instructions to Veterinary Students.....	616.05
Matriculation	175.00
Library	349.00
Laboratory	288.08
Rent of Microscopes.....	245.00
Rent of Hall.....	49.00
Miscellaneous	45.00
	<hr/>
	\$13,019.74

Expenses.

Salaries	\$7,350.40
Stationery and Printing.....	558.79
Advertising	150.98
Library	81.00
Laboratory	1,158.76
Janitors	1,302.50
Fuel	\$831.65
Light	843.81
	<hr/>
	\$1,675.46
Chargeable to College of Arts and Science	500.00
	<hr/>
	1,175.46
Transferred to General Funds.....	500.00
Supplies and Expenses, Medical Hall.....	823.93
Miscellaneous	1,025.00
	<hr/>
	14,127.42

Net Loss, transferred to Revenue Account, Exhibit
 "E" \$1,107.68

EXHIBIT "M."

DEPARTMENT OF DENTISTRY.

For the Year ended August 31, 1912.

Income.

Tuition	\$5,341.75	
Matriculation	135.00	
Laboratory	94.07	
Rent of Microscopes.....	182.00	
Infirmary	506.80	
		<hr/>
		\$6,259.62

Expenses.

Salaries	\$3,833.77	
Stationery and Printing.....	69.67	
Advertising	32.50	
Supplies, etc.....	351.48	
Miscellaneous	330.06	
Transfer to General Fund.....	500.00	
		<hr/>
		5,117.48

Net Income, transferred to Revenue Account, Exhibit
 "E" \$1,142.14

EXHIBIT "N."

ARTS AND SCIENCE LIBRARY.

For the Year ended August 31, 1912.

Income.

Library Fees.....	\$1,350.00
-------------------	------------

Expenses.

Books and Supplies.....	\$413.59	
Salaries	1,050.00	
		<hr/>
		1,463.59

Net Loss, transferred to Revenue Account, Exhibit
 "E" \$113.59

EXHIBIT "O,"

UNIVERSITY HOSPITAL.

For the Year ended August 31, 1912.

Income.

Pay Patients:	
Collected	\$49,304.01
Uncollected	2,035.31
	<hr/> \$51,339.32

Expenses.

Salaries and Wages.....	\$12,506.71
Table Supplies.....	16,085.68
Medical and Surgical Supplies.....	5,078.45
Electricity and Gas.....	2,191.00
Fuel	1,770.48
Laundry	1,483.66
Supplies	1,681.30
Repairs	1,297.15
Ice	1,102.39
Rent, Nurses' Home.....	1,200.00
Telephone	482.50
Uniforms	429.10
Stationery and Printing.....	453.38
Insurance	122.70
Hauling	75.00
Repairs, Renewals, and Replacements.....	208.40
Miscellaneous	775.88
Transfer, Contribution for General Expense of University	500.00
	<hr/> 47,443.87

Net Income of University Hospital for the Year ended
August 31, 1912, transferred to School of Medicine
Surplus, Exhibit "C"..... \$3,895.45

EXHIBIT "P."

SUMMARY OF ENDOWMENT FUNDS.

As at August 31, 1912.

<i>Endowment Funds.</i>	<i>Debit.</i>	<i>Credit.</i>
Endowment Funds, as at August 31, 1910.....		\$415,890.68
Less Impairment of Endowment Funds, as at August 31, 1910.....		317,620.62
		<hr/>
Unimpaired Balance of Endowment Funds on August 31, 1910, as shown by Schedule No. 1.		\$98,270.06
Additional Endowment Funds:		
Woodbury Hospital Fund.....		9,583.33
Laura M. Tree Hospital Endowment.....		10,000.00
Gardiner G. Hubbard Memorial Prize Fund..		1,000.00
J. MacBride Sterrett, Jr., Memorial Prize Fund		200.00
Law Department Fund.....		2,028.75
Congressional Professorship of English Fund		2,213.77
		<hr/>
(Increase in fund due to the sale of land in the Government grant.)		
Endowment Funds represented by Investments on August 31, 1912, as shown by Schedule No. 2.....		\$123,295.91
<i>Endowment Fund Investments.</i>		
Investment of Endowment Funds on August 31, 1912, as shown by Schedule No. 3.....	\$123,061.27	
Uninvested Cash on August 31, 1912:		
Eleanor J. Cooper Medical Endowment Fund.....	\$29.17	
Congressional Professorship of English Fund.....	47.77	
Woodbury Hospital Endowment.....	83.33	
Laura M. Tree Hospital Endowment.	74.37	
	<hr/>	234.64
Total	\$123,295.91	\$123,295.91

EXHIBIT "Q."

ENDOWMENT FUND, INCOME AND EXPENSES.

For the year ended August 31, 1912.

	Debit balance, Aug. 31, 1911.	Credit balance, Aug. 31, 1911.	Year ended Aug. 31, 1912.		Debit balances, Aug. 31, 1912.	Credit balances, Aug. 31, 1912.
			Expenses.	Income.		
Corcoran Endowment Fund.....	\$805.93	\$1,078.08	\$1,351.64	.....	\$1,078.59
Powell Endowment Fund.....	1,084.47	504.80	2,137.50	.....	3,317.17
Ordronaux Prize Fund.....	91.40	150.00	201.76	.....	143.16
Eleanor J. Cooper Medical En- dowment Fund.....	648.07	.....	527.42	.....	1,175.49
Cutter Prize Fund.....	\$25.00	.....	50.00	.....	\$75.00	.....
Elton Professorship Fund.....	313.87	.....	210.63	.....	524.50
Fitch Prize Fund.....	29.82	50.00	26.58	.....	6.40
Walsh Prize Fund.....	22.94	.....	15.21	.....	38.15
National Park Seminary Hospital Endowment.....	56.24	.....	44.07	.....	100.31
Davis Prize Fund.....	29.97	38.00	33.54	.....	25.51
Alumni Hall Fund.....	139.81	.....	2.80	.....	142.61
Davis Scholarship Fund.....	80.00	.....	.....	.....	80.00	.....
Farnham Scholarship Fund.....	31.55	40.00	47.00	.....	39.45
M. M. Carter Scholarship Fund.....	31.55	40.00	47.00	.....	39.45
M. L. Stone Scholarship Fund.....	63.00	80.00	95.80	.....	78.89
Staughton & Elton Prize Fund.....	25.78	20.00	23.94	.....	29.72
Ruggles Prize Fund.....	10.00	.....	20.00	.....	30.00	.....
Congressional Professorship of English Fund.....	3.66	242.27	239.61	.....	1.00
Woodbury Hospital Endowment.....38	415.19	418.13	.....	3.32

L. M. Tree Hospital Endowment.	.....	101.87	566.88	483.03	.....	18.02
Chapman Hospital Endowment.	.....	82.60	.....	2.23	.....	84.83
Gardiner G. Hubbard Memorial Prize Fund.	.....	.....	50.00	50.00	.....	.....
J. MacBride Sterrett Memorial Prize Fund.	.....	5.50	10.00	5.50	.....	1.00
H. H. Carter Scholarship Fund.	112.50	.....	93.75	.....	206.25	.....
Less Debit Balances.	\$227.50	\$4,168.50	\$3,449.87	\$5,965.19	\$391.25	\$6,847.57
Net Balances.	.....	227.50	.....	3,449.87	.....	391.25
	.....	\$3,941.00	.....	\$2,515.32	.....	\$6,456.32

SUMMARY OF INCOME AND EXPENSE.

Unexpended Income on August 31, 1911.	.....	\$3,941.00
Income for the year:		
Income for General Purposes, Exhibit "E".....	\$1,801.88	
Income for Designated Purposes.....	4,103.31	
Total.....	5,965.19	
Expenses for the year:		
Expenses for General Purposes, transferred to University.....	\$1,321.25	
Expenses for Designated Purposes.....	2,138.62	
	3,449.87	
Unexpended Income on August 31, 1912.	.....	\$6,456.32

SCHEDULE "I."
 ENDOWMENT FUNDS AND IMPAIRMENT OF ENDOWMENT INCOME.
 As at August 31, 1910.

Fund.	Principal.	Impairment.	Unimpaired balance.	Impairment of endowment income.
Congressional Endowment Fund.....	\$89,493.93	\$63,872.93	\$25,621.00	.....
Poin Dexter Endowment Fund.....	12,525.50	12,525.50	.....	.....
Forty Thousand Dollar Fund.....	26,891.46	26,891.46	.....	.....
Elton Professorship Fund.....	14,508.19	10,133.19	4,375.00	.....
Syms Legacy.....	1,500.00	1,500.00	.....	.....
Withington Scholarship Fund.....	1,573.20	1,573.20	.....	.....
Walker Scholarship Fund.....	2,500.00	2,500.00	.....	.....
Morehouse Scholarship Fund.....	1,500.00	1,500.00	.....	.....
Davis Scholarship Fund.....	1,000.00	1,000.00	.....	.....
Farnham Scholarship Fund.....	1,000.00	.....	1,000.00	.....
M. M. Carter Scholarship Fund.....	1,000.00	.....	1,000.00	.....
Powell Scholarship Fund.....	18,923.00	.....	18,923.00	\$22,272.00
Mary Lowell Stone Scholarship Fund.....	2,000.00	.....	2,000.00	775.38
Staughton & Elton Prize Fund.....	500.00	.....	500.00	.....
Ruggles Prize Fund.....	500.00	500.00	.....	.....
Fitch Prize Fund.....	1,000.00	764.00	236.00	914.83
Cutter Prize Fund.....	1,000.00	.....	1,000.00	75.14
Walsh Prize Fund.....	300.00	.....	300.00	120.58
Ordronaux Prize Fund.....	4,762.50	701.53	4,060.97	230.47
Corcoran Endowment Fund.....	217,864.92	189,158.75	28,706.17	.....
Eleanor J. Cooper Medical Endowment Fund.....	9,347.92	.....	9,347.92	.....
National Park Seminary Hospital Endowment Fund.....	500.00	.....	500.00	.....
Davis Prize Fund.....	700.00	.....	700.00	.....
H. H. Carter Scholarship Fund.....	5,000.00	5,000.00	.....	.....
Total.....	\$415,890.68	\$317,620.62	\$98,270.06	\$24,394.40

SUMMARY OF IMPAIRMENTS.

Principal.....	\$317,620.62
Accumulated Income.....	24,394.40
	\$342,015.02

SCHEDULE "2."

ENDOWMENT FUNDS REPRESENTED BY INVESTMENTS.

As at August 31, 1912.

Congressional Endowment Fund:

Grant by Congress of land in the District of Columbia to be sold and the proceeds invested. The income "To be applied in aid of other revenues of the said college, to the establishment and endowment of such professorships therein as now are, or hereafter shall be, established by the said trustees"..... \$21,539.00

Elton Professorship Fund:

Bequest of Romeo Elton to be applied for the foundation of a professorship of mental and moral philosophy.... 4,375.00

Farnham Scholarship Fund:

Gift of Mrs. Robert Farnham to establish a scholarship in the college..... 1,000.00

Maria M. Carter Scholarship Fund:

Gift of Mrs. Maria M. Carter to establish a scholarship for some deserving young man..... 1,000.00

Admiral Powell Endowment:

Bequest of Admiral Levin M. Powell of land in the District of Columbia; the income to be devoted as far as the same will go, under such regulations as the trustees or overseers may seem best, to the free education of such young men that may desire to take advantage of the said endowment by way of their preparation for entrance into the Naval Academy at Annapolis, Maryland, etc..... 18,923.00

Mary Lowell Stone Scholarship Fund:

Gift of Mary Lowell Stone to establish a scholarship fund to be paid to needy women in the Corcoran Scientific School at the discretion of the dean of said school.... 2,000.00

Staughton and Elton Prize Funds:

Gift of Rev. Wm. Staughton of \$250.00 to found a prize for the encouragement of classical literature in the Columbian College to be called the Staughton Prize....	} 500.00
Gift of Rev. Dr. Romeo Elton of \$250.00 toward the foundation of a prize fund for the encouragement of classical study in the Columbian College.....	

Willie E. Fitch Prize Fund:

Gift of James E. Fitch to found a gold medal with the income of said fund to be assigned under the auspices of the projected scientific school..... 236.00

E. K. Cutter Prize Fund:

Bequest of Marion Kendall Cutler to be invested; the income to be applied for the purchase of an annual prize for excellence in the study of English..... 1,000.00

Thomas F. Walsh Prize Fund:

Gift of Thomas F. Walsh; the income to be applied for an annual gold medal in Irish History..... 300.00

Ordronaux Prize Fund:

Bequest of Dr. John Ordronaux for the establishment of biennial prizes in the Law and Medical Departments... 4,060.97

Corcoran Endowment Fund:

Gift of Wm. W. Corcoran to found a permanent fund, of which the interest alone shall be applied for the purposes of the college..... 28,706.17

Eleanor J. Cooper Fund:

Bequest of Eleanor J. Cooper; the income to be devoted to the investigation of the nature of the malarial poison arising from sewer gas and antidote thereof; to be perpetual 9,347.92

National Park Seminary Endowment:

Gift of the National Park Seminary for the endowment of a bed in the university hospital..... 500.00

Davis Prize Fund:

Gift of Hon. Isaac Davis to establish a fund; the income to be distributed annually to such members of the senior class as shall have made the greatest progress in Elocution since their connection with the college..... 700.00

Woodbury Hospital Endowment:

Bequest of Ellen C. de Q. Woodbury for the reception and treatment of female patients by the hospital belonging to or connected with the University..... 9,583.33

Laura M. Tree Hospital Endowment:

Bequest of Judge Lambert Tree to establish one or more beds in perpetuity in "The Columbian University Hospital," to be known as the "Laura M. Tree bed or beds". 10,000.00

Congressional Professorship of English Fund:

Proceeds from sale of Congressional Grant to be invested and the income applied as shown under Congressional Endowment Fund.....	6,295.77
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Gardiner G. Hubbard Memorial Prize Fund:

Gift by Gertrude M. Hubbard to establish an endowment; the income to be given annually to that member of the graduating class who has during four years maintained a high standing in American History.....	1,000.00
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J. MacBride Sterrett, Jr., Memorial Medal Fund:

Gift by J. MacBride Sterrett to establish a fund; the income to provide a gold medal annually awarded to that student taking course 1 in Physics who obtains the highest average in a special examination on a given subject and in the writing of an essay on an assigned topic	200.00
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Law Department Fund:

Investment of Law Department Surplus; the income to be used for the benefit of the Law Department.....	2,028.75
--	----------

\$123,295.91

SCHEDULE "3."

ENDOWMENT FUND INVESTMENTS.

As at August 31, 1912.

Stocks.

American Telephone and Telegraph Co.;	
6 shares of stock.....	\$708.00
Washington Sanitary Improvement Co.:	
130 shares of stock.....	1,300.00

Bonds.

Chicago, Rock Island and Pacific Railway Co.:	
\$24,000 4% First and Refunding Mortgage Bonds, due 1934	20,959.17
Chicago, Rock Island and Pacific Railway Co.:	
\$5,000 4% Collateral Trust Bonds of 2002.....	4,118.75
Chicago, Rock Island and Pacific Railway Co.:	
\$5,000 4% Collateral Trust Bonds of 2002.....	4,060.97

Riggs Realty Co. of New York:

\$3,000 Coupon Bonds secured by Deed of Trust on property situated at the southeast corner of 15th and G Streets.....	3,000.00
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City of New Brunswick, New Jersey:

\$3,000 4% Sinking Fund Bonds.....	3,000.00
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City of Medford:

\$3,000 4% Sewerage Loan Bonds.....	3,000.00
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Potomac Electric Power Co.:

\$9,000 5% Consolidated Gold Mortgage Coupon Bonds of 1936.....	8,988.75
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Columbia Railway Co.:

\$500 5% Extension Mortgage Gold Coupon Bonds of 1914	505.63
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Potomac Electric Power Co.:

\$1,000 5% Consolidated Gold Mortgage Coupon Bonds of 1936.....	1,000.00
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Norfolk and Washington Steamboat Co.:

\$200 5% Coupon Bonds of 1931.....	208.00
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Potomac Electric Power Co.:

\$2,000 5% Consolidated Mortgage Gold Bonds, due 1936.	2,028.75
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Austen Coal and Coke Co.:

\$1,000 5% First Consolidated Mortgage Gold Bonds of 1926	1,000.00
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Washington Railway & Electric Co.:

\$500 4% Consolidated Mortgage 50-year Gold Bond, due 1951.....	431.25
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Potomac Electric Power Co.:

\$2,000 5% Consolidated Mortgage Gold Bonds, due 1936.	2,040.00
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Trust Notes.

Thomas R. Marshall Note:

Note secured by deed of trust on part of lot 5, square 253, and lot 70, block 30, in Columbia Heights.....	5,000.00
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Lewis Spectre Note:

Note secured by deed of trust on lot 64, square 1017...	200.00
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Washington Sanitary Improvement Co. Notes:

Real Estate Notes as follows: 12 notes of \$1,000; 2 notes of \$2,000.....	16,000.00
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Wm. S. and Susan L. Dewhirst Note:

Note secured by deed of trust on lot 9, square 243.....	500.00
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Robert R. Mahorney Note:

Note secured by deed of trust on original lot 5, square 83	3,000.00
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Agnes Plunkett Notes:

Notes secured by deed of trust on part of lot 12, square 11, in Meridian Hill.....	200.00
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Real Property.

Real Property, 1707 I Street N. W.....	18,923.00
Real Property, Burgdorf Lot (sublot 148, square 672).....	1,350.00
Real Property, Government grant:	
Lot 8, square 13.....	2,565.00
Lot 10, square 13.....	2,218.00
Lot 12, square 13.....	4,588.00
Lot 13, square 13.....	3,924.00
Lot 9, square 16.....	2,224.00
Lot 8, square 23.....	3,055.00
Lot 2, square west of 23.....	1,069.00
Lot 5, square 87.....	1,896.00
	<hr/>
	\$123,061.27

Summary.

Stocks	\$2,008.00
Bonds	54,341.27
Trust Notes.....	24,900.00
Real Property.....	41,812.00
	<hr/>
	\$123,061.27

SCHEDULE "4."
STATEMENT OF CASH RECEIPTS AND PAYMENTS.
For the Year ended August 31, 1912.

<i>Receipts.</i>		<i>Payments.</i>	
Students' Receipts:		Expenses and Pay Rolls:	
Department of Graduate Studies...	\$4,327.75	Department of Graduate Studies..	\$2,635.35
Department of Arts and Sciences..	24,137.51	Department of Arts and Sciences..	17,797.66
Department of Engineering.....	12,451.85	Department of Engineering.....	10,041.35
Department of Political Sciences..	4,151.25	Department of Political Sciences..	7,659.18
Department of Teachers College...	3,812.65	Department of Teachers College...	3,639.23
Department of Law.....	26,874.80	Department of Law.....	22,552.75
Department of Medicine.....	12,073.90	Department of Medicine.....	10,214.72
Department of Dentistry.....	6,045.36	Department of Dentistry.....	4,595.23
Graduation Fees.....	1,840.00	Arts and Sciences Library.....	1,463.59
Bonds	57.00		
	<u>\$96,672.07</u>		<u>\$80,619.08</u>
University Hospital.....	49,304.01	Students' Ledger:	
Dental Infirmary.....	566.80	Refunds to Students.....	2,703.44
Contributions:		University Hospital.....	48,088.48
15,000 Dollar Fund.....	\$1,559.33	Maintenance of Buildings:	
Political Science Fund.....	9,800.00	University Buildings.....	\$7,078.56
General Expenses, 1910-1911-1912..	8,370.01	Law Hall.....	2,070.37
General Expenses, 1912-1916.....	10,800.00	Medical Hall.....	3,955.19
	<u>30,529.34</u>	Political Sciences Hall.....	2,395.15
Student Fees, 1910-1911.....	968.76		
Old Hospital Accounts Collected.....	169.14	General Expense.....	16,399.27
Rent of Fraternity Rooms.....	319.00	Stationery and Printing.....	12,168.56
Old Student Fees Collected.....	97.22	Advertising	2,008.80
Sale of Stationery.....	17.00	Postage	710.00
Medical Surplus:		Expenses of Altering Buildings and Moving	483.60
Collection of accounts prior to 8/31/11.....	1,170.88	Equipment to G Street Property.....	8,787.26

REPORT OF THE TREASURER.

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Miscellaneous Income (Departments):		
Department of Arts and Sciences..	\$154.08	
Department of Political Sciences..	9.65	
Department of Teachers College..	49.50	
Department of Law.....	150.00	
Department of Medicine.....	863.05	
Interest		1,227.18
Miscellaneous Income:		144.73
Rent of Stable.....		
Diplomas	\$10.00	
Sale of Old Furniture, Etc.....	4.00	
Matriculation Fees, National Col-	8.00	
lege of Veterinary Medicine.....	75.00	
Matriculation Fees, National Col-		
lege of Pharmacy.....	150.00	
Transfer of Endowment Income..	1,321.25	
Total Receipts.....		1,568.25
		<u>\$182,694.38</u>
Cash Balance, September 1, 1911:		
Riggs National Bank.....	\$1,913.51	
Commercial National Bank.....	1,811.83	
National Metropolitan Bank.....	71.18	
		<u>3,796.52</u>
		<u>\$186,490.90</u>
Equipment:		
Medical		602.12
Dental		10.00
General		251.37
		<u>953.49</u>
Law Surplus (Investment in Bonds).....		2,007.09
Medical Surplus:		
Payment of Accounts prior to 8/31/11.....		218.00
Accounts Payable prior to 8/31/10.....		4,658.80
Mount Vernon Alcove.....		31.28
Interest		36.00
Notes Payable.....		3,000.00
Accounts Payable:		
Over-payment of Account.....		0.10
Total Payments.....		<u>\$182,933.25</u>
Cash Balance, August 31, 1912:		
Riggs National Bank.....	\$2,125.82	
Commercial National Bank.....	1,431.83	
		<u>3,557.65</u>
		<u>\$186,490.90</u>

VOLUME XI

NUMBER 4

The George Washington University Bulletin

DECEMBER, 1912



PUBLISHED BY THE UNIVERSITY AT WASHINGTON, D. C., IN MARCH,
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THE GOVERNMENT CLERK AS A LAW STUDENT.

By HENRY CRAIG JONES, ASSISTANT PROFESSOR OF LAW, AND
WILLIAM C. VAN VLECK, SECRETARY OF THE DEPARTMENT
OF LAW.

The students of the Law Department of George Washington University are composed of two quite distinct groups.

The first and larger group is chiefly composed of students who are connected in some way with the government service. They are departmental clerks, patent office examiners, library employees, secretaries of congressional committees or of representatives or senators, and among them are several naval officers. Many of them hold positions of responsibility which demand ability and careful training, which they have secured only through the passing of rigid competitive examinations. The short hours of the Government service, from 9:00 A. M., to 4:30 P. M., have made it possible for these men to study law in a day law school, and in them the Law Department has a body of students different from that found in any other *day* law school in the country.

Until the current year, the only lecture hours which these men might attend were the two fifty-minute periods between 4:50 and 6:30 P. M., thus making attendance necessary on six afternoons each week in order to cover the full twelve hours of class-room attendance necessary each week to complete the course in three years. Efforts now being made to the end of enabling these men to have one afternoon free from lectures and still attend the full twelve hours weekly, will be mentioned later.

The second and smaller group is chiefly composed of students who devote substantially their entire time to the study of law and who therefore work under conditions similar to those in other day law schools. In some instances they attend

the late afternoon sections but in the majority of courses are placed in separate sections meeting at the more convenient hours of 9, 10, or 11 A. M. These forenoon sections are smaller than the afternoon sections and in them students receive more individual attention. The work required of these students is the same in character, quality, and amount as that demanded in other first-class law schools and not different from that required of the men in the other group who attend the afternoon sections.

It has sometimes been said that a law student cannot do first-class work when compelled at the same time to earn his living. One sometimes hears the proposition stated in another form, to the effect that a law student otherwise employed does not do as good work as one devoting his entire time to the study of law. The presence in the Law Department of two groups of students, one engaged in outside employment and the other devoting their entire time to the study of law, affords an unusual opportunity for a definite comparative study of these two classes, by which the beliefs above mentioned may be tested and corrected.

As a basis for comparison of the respective records of the two groups of students, a thorough examination has been made of the records of all regular students in the Law Department who took examinations in the scholastic year 1911-1912. There were 231 such students, comprising both groups. No consideration for purposes of comparison has been given to 27 regular students who took no examinations, nor to the records of 48 other students variously classified as graduate, review, or special students.

Although composed of both groups, yet the 231 students whose records were examined are nevertheless a homogeneous body. They pursue the same courses, use the same case and text books, must cover the same work, take the same examinations, are all candidates for the same degree, and have satisfied the same preliminary requirements for admission, by having in each instance at least a high school education, though in fact over 40% are graduates from over sixty different

colleges and universities, and over 70% have had at least part of a college course.

These 231 students belong to the two groups mentioned above, as follows:

Group 1. Students otherwise employed...	189
Group 2. Students devoting entire time...	42
Total	231

It does not appear that there is much difference between the two groups in the respective average of hours of class-room work carried. Twelve hours per week is full work and if successfully carried for three years completes the work for the bachelor of laws degree. As to this point the records show only a slightly greater amount of work carried by the average student of Group 2.

The figures are as follows:

FIRST SEMESTER, 1911-1912.

	Enrolled.	Total hours taken.	Average hours taken per week.
Group 1.	180	1732	9.62
Group 2.	41	438	10.68

SECOND SEMESTER, 1911-1912.

	Enrolled.	Total hours taken.	Average hours taken per week.
Group 1.	170	1749	10.28
Group 2.	41	461	11.27

AVERAGE DURING YEAR 1911-1912.

Group 1.....	9.94 hours per week.
Group 2.....	10.96 hours per week.

The records also show that practically the same percentage of students in each group carried full work, viz., twelve hours per week, although again the average is slightly greater in Group 2.

The figures are as follows:

FIRST SEMESTER, 1911-1912.

	Enrolled.	Number taking 12 hours or more per week.	Percent. taking 12 hours or more per week.
Group 1.	180	99	55%
Group 2.	41	26	63%

SECOND SEMESTER, 1911-1912.

	Enrolled.	Number taking 12 hours or more per week.	Percent. taking 12 hours or more per week.
Group 1.	170	99	58%
Group 2.	41	26	63%

Percentage of students in each group carrying 12 hours or more of class work each week during year, 1911-1912:

Group 1.	56½%
Group 2.	63%

Thus it appears that there are only slight differences between the number of hours carried by the average man of each group and that nearly the same percentage of each group are carrying full work.

The statistics as to the preliminary education of the men of the respective groups is of interest. It shows that the men of Group 1 slightly excel in extent of preliminary education.

The figures are:

	Enrolled.	Number of College Graduates.	Percent. of College Graduates.
Group 1.	189	89	46%
Group 2.	42	14	33%

	Enrolled.	Number who have Graduated or have had part of College Course.	Percent. who have Graduated or have had part of College Course.
Group 1.	189	136	72%
Group 2.	42	28	66%

The only other factor which might affect scholarship is the respective sizes of the class sections of each group. The average forenoon section attended by the men of Group 2 contains no more than twenty students while the average afternoon section contains from fifty to eighty men.

The advantages of the men of Group 1 are as follows: (1) They attend, on the average, about one hour less of lectures per week. (2) They slightly excel in average preliminary education and therefore in maturity. These advantages are counterbalanced by two advantages possessed by the men of Group 2. (1) They attend smaller classes and therefore receive greater individual attention. (2) They have their entire time for study.

The striking statistics come when one examines the comparative records of the two groups as to scholarship. One would naturally expect that the scholarship of the group devoting its entire time to the study of the law would be the higher, but the reverse seems to be the case. With respect to men who neither failed nor were conditioned in any course as compared with those who failed or were conditioned in one or more courses during the year 1911-1912, the record is as follows:

	Total Enrollment.	Men without failures or conditions.	Men failed or conditioned in one or more subjects.	Percent. of failures and conditions.
Group 1.	189	137	52	27.5%
Group 2.	42	27	15	35.7%

The same result is shown where the comparison is as to total hours taken and total hours conditioned or failed in each group.

	Total hours taken.	Total hours failed or conditioned.	Percent. of hours failed or conditioned.
Group 1,	3481	275	7.9%
Group 2.	899	105	11.7%

From the above figures the paradox would almost seem true that the less time the law student has for study, the better is the grade of his work.

Persons unfamiliar with conditions might be inclined to charge that this peculiar and unexpected result can come only where standards of scholarship are low or where the quantity and quality of work required for passing marks and degrees are below par. The answer to any such suggestion is that it is not true in any respect in the case under consideration. The Law Department is a member of the Association of American Law Schools and therefore bound by its standards as to entrance requirements, equipment, and quantity and quality of work exacted for a law degree. The methods of instruction and study used, chiefly in respect to the case system, are those adopted in practically every first-class law school in the country. The large majority of the courses are given by resident instructors who have offices at the law building and devote their entire time to the law school. The moot court of the Law Department is deemed a model in type and efficiency among American law schools. Credits from the Law Department are given standard recognition by other law schools and by the bar examination boards of the various States. Among its graduates there has been substantially not a failure to pass the District of Columbia bar examinations during the past seven years, when the proportion of failures among all those taking these examinations has been from 33% to 55%.

Other persons may be inclined to charge that this result can come only where there is a low standard of scholarship among the students of Group 2, who devote their entire time to the study of law. The answer again is that this is not true. Group 2 contains many brilliant students and is doing work fully equal in quality and quantity to that of students in other leading day law schools. The standard to which the work of the men of Group 1 is compared is not a low one.

Still others might say that the Law Department requires less of the men of Group 1. But this is not true. The men of each group cover exactly the same work, in the same time, are taught by the same methods, and are tested by the same standards and examinations.

The true reason for the scholastic superiority of the men of Group 1, despite the disadvantages under which they labor, is that they are substantially the same kind of men, who have in the past worked their way through college and are doing so to-day in every institution of learning. The records of such men in college and in later life are too well known to mention. Instead of tending furnace, waiting on table, collecting laundry, or doing some other work of the kind done by the self-supporting student in Harvard, Cornell, Columbia and other colleges and universities, the self-supporting student in the law Department of George Washington University fills a position in a government department. He has learned to make every moment count and the Law Department is doing all it can to assist him. To this end a plan has been inaugurated during the present year of offering lectures from ten minutes before eight until twenty minutes before nine on two mornings each week, open to all second and third year men. In this way a student may omit attendance on one afternoon without reducing his work below the regular twelve hours per week. The attempt appears a success and it has been suggested by some that these early morning class-room periods be extended to four mornings per week. Student approval of the innovation is shown by the fact that over 40% of the members of the second and third year classes attend these early morning lectures, which are also available to men devoting their full time to the study of law.

The daily program of the government clerk in bread winning and law study is a full one. If he has a morning class, he hurries from breakfast to the class-room at ten minutes before eight and from the class-room at eight forty in order to reach his employment at nine o'clock. If he has no morning class he may devote the hour to study. At 4:30 he leaves work and is in the class-room again from 4:50 to 5:40 or until 6:30. In the evening he reads and abstracts his twenty to twenty-five pages of cases or text for the following day.

It must not be thought that such a program is possible for the student attending a night law school. The arrangement of

hours must be such as to enable the student to make effective use of the time from 4:30 until 6:30 which otherwise is apt to be lost, and the use of the period from ten minutes before eight until nine o'clock in the morning secures a further economy of time. Class-room hours in the day-time with an uninterrupted evening for study are essential.

The aim of the government clerk who thus studies law is definite and he knows what he must do to accomplish it. He is a great living example of the saying, "If you want a thing done, get a busy man to do it."



The George Washington University

COLLEGE OF VETERINARY MEDICINE

1912-1913



Washington, D. C.
Published by the University
June, 1912

UNIVERSITY CALENDAR

1912.

June 5, *Wednesday*.—University Commencement.

SUMMER VACATION

September 23, *Monday*.—Examinations for admission. College of Veterinary Medicine.

September 25, *Wednesday*.—Academic Year begins in all Departments of the University.

October 9, *Wednesday*.—Stated meeting of the Board of Trustees.

November 28-30, *Thursday to Saturday*, both inclusive.—Thanksgiving recess.

RECESS FROM DECEMBER 23, 1912, TO JANUARY 2, 1913, both inclusive.

1913.

January 8, *Wednesday*.—Stated meeting of the Board of Trustees.

January 27, *Monday*.—Last day on which dissertations may be presented.

February 3, *Monday*.—Second Term begins.

February 10, *Monday*.—Doctorate Disputation.

February 22, *Saturday*.—A holiday in all Departments of the University.

March 21-24, *Friday to Monday*, both inclusive.—Easter holidays.

March 25, *Tuesday*.—Davis Prize Speaking.

May 1, *Thursday*.—Last day on which dissertations may be presented.

May 19, *Monday*.—Doctorate Disputation.

May 20-23, *Tuesday to Friday*.—Examinations for admission.

May 30, *Friday*.—A holiday in all Departments of the University.

June 4, *Wednesday*.—Annual meeting of the Board of Trustees.

June 8, *Sunday*.—Baccalaureate Sermon.

June 11, *Wednesday*.—University Commencement.

The George Washington University

COLLEGE OF VETERINARY MEDICINE

2113-2115 Fourteenth Street N.W.

WASHINGTON, D. C.

CATALOGUE

1912-1913

Published by the University, at Washington, D. C., in June, 1912

The George Washington University
COLLEGE OF VETERINARY
MEDICINE



OFFICE BUILDING

2113-2115 FOURTEENTH ST. N.W.
WASHINGTON, D. C.

GEORGE WASHINGTON'S DESIRE FOR A GREAT UNIVERSITY AT THE
CAPITAL OF THE NATION

"It has been my ardent wish to see a plan devised, on a liberal scale, which would have a tendency to spread systematic ideas through all parts of this rising empire, thereby to do away with local attachments and state prejudices, as far as the nature of things would, or indeed ought, to admit, from our national councils. Looking anxiously forward to the accomplishment of so desirable an object as this is (in my estimation), my mind has not been able to contemplate any plan more likely to effect the measure than the establishment of a university . . ."

George Washington, in His Last Will.

"The Federal City, from its centrality and the advantages which in other respects it must have over any other place in the United States, ought to be preferred as a proper site for such a university."

George Washington's Letter to Commissioners.

"And so on this birthday of the Father of His Country, I leave with you this thought: George Washington the testator, the people of the United States the executor, the bequest a university, its domicile this District, its field of toil the Republic, the reach of its ever-increasing influence and glory the boundaries of space and time."

*Mr. Justice Brewer's Address at The George Washington
University Convocation, February 22, 1905.*

"Therefore, the objects of this movement are, to establish The George Washington University upon a commanding site given by the people of the District, with ample endowment furnished by the private benefactions of the people of the whole country, and thus to create the great University Washington and his associates desired to see established in the National Capital."

*Extract from Statement adopted by the
Citizens' Committee, March 11, 1907.*

The George Washington University

CHRONOLOGICAL TABLE

1790. George Washington's last will and testament, urging the establishment of a university in Washington.
1821. Charter granted by Act of Congress creating "The Columbian College in the District of Columbia."
1825. The Medical School organized.
1865. The Law School organized.
1866. Mr. W. W. Corcoran gave the Medical School a building, 1325 H Street.
1872. Mr. Corcoran gave an endowment "to make the College an University."
1873. Act of Congress changing the name of the Columbian University.
1884. University building, Fifteenth and H Streets, occupied by various departments of the University.
1884. The Corcoran Scientific School organized.
1887. The Dental School organized.
1893. The School of Graduate Studies organized.
1898. The Department of Jurisprudence and Diplomacy organized.
1898. Incorporation of the George Washington Memorial Association.
1902. Merging of the College, the Corcoran Scientific School, and the School of Graduate Studies into one Department of Arts and Sciences.
1903. Conferences between representatives of the Washington Memorial Institution, the George Washington Memorial Association, and the Columbian University with a view to cooperation in graduate work.
1904. January 23. Act of Congress making the University non-sectarian and giving the Board of Trustees power to change the name.
1904. Suggestion of the George Washington Memorial Association that Columbian University change its name to The George Washington University, and its offer to erect a memorial building on the new site, at a cost of \$500,000, for graduate study and scientific research, accepted by the Board of Trustees.
1904. September 1. Change of name to The George Washington University.
1905. February 22. First Winter Convocation of The George Washington University.

1905. Act of Congress authorizing the incorporation of colleges under the University charter.
1905. Organization under the University charter of the Columbian College, the Washington College of Engineering, and the National College of Pharmacy.
1907. Organization of the College of Political Sciences.
1907. Organization of the Division of Education.
1908. Organization of the College of Veterinary Medicine.

ORGANIZATION

The University embraces:

THE DEPARTMENT OF ARTS AND SCIENCES

- The Faculty of Graduate Studies
- The College of Arts and Sciences
- The College of Engineering and Mechanic Arts
- The College of Political Sciences
- The Teachers' College
- The Division of Architecture

THE PROFESSIONAL DEPARTMENTS

- The Department of Law
- The Department of Medicine
- The Department of Dentistry
- National College of Pharmacy
- The College of Veterinary Medicine

ANNUAL COMMENCEMENT AND FALL AND WINTER CONVOCATIONS

The Annual Commencement is held on the second Wednesday in June. The Fall Convocation is held on the third Wednesday in October. The Winter Convocation is held on the 22d of February. Degrees are publicly conferred on Commencement Day. Members of the faculties and candidates for degrees are expected to appear in academic caps and gowns.

EDUCATIONAL POSITION

The College of Veterinary Medicine of The George Washington University is recognized by the American Veterinary Medical Association, and is accredited in all its work by the various State Veterinary Examining Boards.

Graduates are permitted to enter the examinations of the United States Civil Service Commission and of the Veterinary Examining Board of the United States Army.

The George Washington University

THE BOARD OF TRUSTEES

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President of the University

1912

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1913

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1914

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*Nominated by the Alumni.

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DAVID EASTBURN BUCKINGHAM, V.M.D.....	Dean of the College of Veterinary Medicine

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Catalogue and Other Publications: The President, the Secretary,
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Schedule: Professors Henning, Mechlin and Ruediger.

Library: Professors Hough, Kern, the Librarian.

Student Organizations: Professors Ruediger, Henning and ———.

Debating: Professor Veditz, Messrs. W. E. Calley and W. R. Fitch.

PRIVILEGES IN GOVERNMENTAL INSTITUTIONS OPEN TO UNIVERSITY STUDENTS

In order to promote research and the diffusion of knowledge, the Congress of the United States has made the scientific resources of the Government accessible to students under the terms of the following joint resolution, approved April 12, 1892:

"Resolved by the Senate and House of Representatives of the United States of America in Congress assembled. That the facilities for research and illustration in the following and any other Government collections now existing or hereafter to be established in the city of Washington for the promotion of knowledge shall be accessible, under such rules and restrictions as the officers in charge of each collection may prescribe, subject to such authority as is now or may hereafter be permitted by law, to the scientific investigators and to students of any institution of higher education now incorporated or hereafter to be incorporated under the laws of Congress or of the District of Columbia, to wit:

1. Of the Library of Congress.
2. Of the National Museum.
3. Of the Patent Office.
4. Of the Bureau of Education.
5. Of the Bureau of Ethnology.
6. Of the Army Medical Museum.
7. Of the Department of Agriculture.
8. Of the Fish Commission.
9. Of the Botanic Gardens.
10. Of the Coast and Geodetic Survey.
11. Of the Geological Survey.
12. Of the Naval Observatory.

Libraries.—In the archives of the State and other Departments and in the statistical bureaus of these Departments are extensive accumulations of original historical documents and data which are invaluable to graduate students in history, political science, economics, sociology and the allied topics of research. The Library of Congress, the Public Library of the District of Columbia, and the many highly specialized libraries attached to the various Departments of the Government are made easily accessible.

Museums.—In the collections of the National Museum, the Smithsonian Institution, the Army Medical Museum, the Museum of Naval Hygiene, and the departmental museums are found extensive series of specimens of great value to the student of anthropology, archæology,

mineralogy, geology, paleontology, biology in all its branches, and other sciences. In the Patent Office are the records of the many inventions that have contributed so materially during our national existence to modify the conditions under which we live. The Army Medical Museum, which is open for inspection daily, presents a field for study superior to any other institution of the kind, either in this country or in Europe. Its library of medical books and periodicals is the best in the world. It has an unrivaled collection of anatomical and pathological specimens, illustrating normal anatomy and the results of disease in every form, and an almost unlimited number of other preparations showing the effect of gunshot wounds and surgical injuries of every kind. It also contains almost numberless crania of every human nationality. In the National Museum is found the most complete and best arranged collection of *Materia Medica* in the world. The drugs are shown in all their processes of manufacture, from the original package to the delicate alkaloid constituting the active principal.

Laboratories.—In the experimental sciences the most notable facilities are available, since in Washington are centered the Weather Bureau, with its appliances for the study of national problems in meteorology; the Coast and Geodetic Survey, from which the surveys of our territory are carried on and by which the figure of the earth and terrestrial magnetism are experimentally determined; the Hydrographic Bureau, which conducts the surveys of foreign coasts and the study of the oceans; the Bureau of Standards, which standardizes the instruments used in measuring mass, volume, heat, light, electricity, and all other magnitudes; the Geological Survey, which investigates the structure of the earth, ascertains our mineral resources, and supervises the sources of supply and means for distribution and control of water for irrigation purposes; the Department of Agriculture, which exists primarily for conducting original investigations for the benefit of agriculture in all its branches, and is therefore provided with extensively equipped laboratories for the study of chemistry, botany, vegetable physiology, entomology, biochemistry, bacteriology, comparative pathology, parasitology, the physics and chemistry of the soil, forestry and microscopy; the Naval Observatory and Nautical Almanac Office, where researches in astronomy and navigation are conducted; the Marine-Hospital Service, which deals with national problems in hygiene; the Bureaus of Construction and of Steam Engineering of the Navy, having supervision over the designs and construction of our ships; the Bureau of Yards and Docks, having supervision over the engineering operations at our navy yards and naval stations; the Bureau of Equipment, which is charged with the electrical installations for the Navy; the United States Signal Corps, which has supervision over the electrical installations for the Army; the Engineer Corps of the Army;

which is charged with river and harbor improvements, and the Lighthouse Board, which controls the system for lighting our navigable waters.

An extensive new laboratory is being equipped for the Marine-Hospital and Public Health Service. This is a national health department of the Government. In this laboratory and in the laboratories of the Department of Agriculture there are superior facilities for all kinds of bacteriological and chemical investigations, and for the study of biochemistry, comparative pathology, and parasitology. The new laboratories and hospitals of the Army and the Navy also offer many opportunities for instruction.

ANNOUNCEMENT

The organization of the College of Veterinary Medicine under the charter of The George Washington University was authorized by the Board of Trustees on March 17, 1908.

The College of Veterinary Medicine aims to provide a thorough course in all branches relating to Veterinary Medicine. The course is intended to give the student a broad veterinary education, so that he can go forth as a general practitioner or specialize in one of the fields now occupied by veterinary experts.

In addition to the necessity for properly trained veterinary practitioners, there is a great and growing demand, especially in the Southern States, for the services of trained veterinarians in various lines of official work.

The Bureau of Animal Industry, Department of Agriculture, employs more veterinarians than any organization in the world, and is constantly enlisting the services of trained young men for work either in the great abattoirs and stock-yards under Government supervision, or in the quarantine service or as investigators in various lines of veterinary research. The salaries of these positions vary from \$1,400 to \$4,500 a year. The United States Army employs forty-two veterinarians in its cavalry and artillery service. These veterinarians are given the status of lieutenants (mounted), and their pay is from \$1,700 to \$2,500 a year.

Veterinarians, to enter either of these services, must be graduates of recognized veterinary schools, requiring a three years' graded course, and a competitive examination is required for both positions.

Many States employ veterinarians and assistants at good salaries to investigate and suppress diseases among domestic animals. A large number of trained veterinarians are given lucrative and attractive employment in the various State colleges and experiment stations as Professors of Veterinary Science.

The demand for veterinarians by the Health Departments of the large cities is unprecedented. All of them are now awakening to the great necessity of a trained supervision of meat and milk supplies.

Large numbers of specially trained veterinarians will be needed in the near future to act as inspectors of meats and inspectors of dairy farms in all our large cities, for no other class of scientific men have been found that can successfully cope with this work, as the modern, scientifically trained veterinarian.

With the amalgamation of interests and the cooperation now existing between the United States and the Central and South American Republics, which sentiment is now being strengthened by the Bureau of American Republics in Washington, D. C., there will be a larger and growing demand for scientific workers in these Republics, especially men trained for animal and plant industry.

Heretofore these Latin Republics have looked to Continental Europe for their veterinarians. At present the trend is toward this country, for several of our brightest veterinarians are now taking service with these republics, and with their recognition will come a demand for more veterinarians.

At no time in the history of the veterinary profession has there been a more opportune time for young men of ability to enter this profession and succeed. The vast amount of capital invested in our animals in the various States, and the widespread existence of tuberculosis and other diseases in them, and the relation which these diseases bear to the health and wealth of the country, make it more and more necessary that there be a class of persons thoroughly educated for the duty of coping with these conditions.

On account of the large number of collateral subjects now required in the course in veterinary medicine, it has been deemed necessary to extend the course from three to four years, beginning with the 1912 session. This is in accordance with the most modern practice and four-year courses are now being given by many of the leading veterinary colleges connected with the various State universities.

WASHINGTON AS A SCIENTIFIC CENTER

The Capital City is particularly well located for students seeking any branch of education. It is clean, healthy, attractive, and offers exceptional opportunities for self-advancement. It is the favorite meeting place for scientific congresses of all kinds. In this city are located the headquarters of every large branch of the Government, and particularly its scientific research laboratories, and a student has advantages here that are not afforded in any other city in this country.

The great Congressional Library is open day and night for reading

and research work and contains every book and magazine copyrighted in the United States, and most of those published abroad.

The Medical Library of the Surgeon-General's Office, the largest medical library in the world, is open to students daily.

The Library of the Agricultural Department and Bureau of Animal Industry contains the largest, most up-to-date veterinary library in the United States, and is open every day to veterinary students.

The veterinary student will also find here the laboratories and experiment station of the Bureau of Animal Industry, where the highest class of investigations of animal diseases are conducted, and which are model institutions, unequaled for their purpose in this country, and unsurpassed in the world.

Of great interest and value to every student are the National Museum, the Army Medical Museum, the Museum of Hygiene, U. S. N., the Botanical Gardens, the herbarium, green-houses, gardens and grounds of the Department of Agriculture. In these the students have unrivaled advantages for the study of Anatomy, Materia Medica, Biology, Sanitary Appliances, Botany, etc. They are all free and are open to students every week day from 9 A.M. to 4 P.M.

The Faculty is made up of well-known veterinarians and experienced lecturers, who are recognized as authorities on the subjects which they teach. The courses have been arranged to suit the requirements of modern veterinary education. The lectures on the control and eradication of infectious diseases and on meat inspection are a special feature, designed to fit the students for the many responsible and lucrative positions which have been opened up to competent men by recent State and national legislation.

The Administration Building and two hospital buildings of the College are located at 2113-2115 Fourteenth Street N.W. In this building are the Dean's office, library, pharmacy, faculty, reception and operating rooms. The veterinary hospital and the canine hospital are equipped with all appliances for the cure and relief of sick and injured animals.

Clinics are held at abattoirs and stock-yards under governmental inspection and visits to stock and dairy farms and army posts, in company with clinical professors are required.

COLLEGE OF VETERINARY MEDICINE

BOARD OF TRUSTEES

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FACULTY

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RALPH MITCHELL LE COMPE, M.D.,	Instructor in Bacteriology and Pathology
TUNIS HICKS, D.V.M.,	Instructor in Veterinary Anatomy

COLLEGE OF VETERINARY MEDICINE

15

WILLIAM HENRY O'HARA, D.V.M.....	Instructor in Veterinary Medicine
CHAUNCEY M. GRUBB, D.V.M.....	Lecturer on Dairy Inspection and Milk Hygiene
EDWIN HENRY INGERSOLL, S.B.....	Assistant in Physiological Chemistry
HARRY A. LOCHBOEHLER, D.V.M.....	Instructor in Veterinary Materia Medica and Therapeutics
JAMES WALTER NORRIS, D.V.M....	Instructor in Horseshoeing, Lameness and Dentistry
JESSE KARL SMITH, D.V.M.....	Instructor in Veterinary Anatomy

REQUIREMENTS FOR ADMISSION

Students presenting a diploma from any recognized college, normal or high school are eligible to admission without examination.

Students not having the above qualifications will be required to pass an examination equivalent thereto, credits being allowed for any subject or subjects on presentation of sufficient evidence.

ADMISSION OF STUDENTS FROM OTHER SCHOOLS

Students of other recognized and approved veterinary schools may be admitted to this school as follows:

Those qualified to enter the second year of such a school may be admitted to the second-year class of this school, those qualified to enter the third year of their own school to the third year of this school; provided, however, that the subjects pursued by the applicants in their previous year or years are reasonably equivalent to those required in the same year or years in this school, and that the requirements for advancement from class to class are the equivalent of those in this school. Applicants may be required to submit to examination in all the subjects pursued by the previous class of this school.

EVIDENCE OF ATTENDANCE

At the end of the college year each student is entitled to and shall receive a written statement giving the length of time spent in each study during the session and the grade received therein. This statement, or definite evidence of credit, shall be exacted from a student before he is given advanced standing in any veterinary college. (U. S. B. A. I. Cir. 150.)

ADVANCED STANDING

Advanced standing will be given for degrees in Medicine, Dentistry, or Veterinary Medicine.

Students holding degrees in Arts, Science, Philosophy, or Agriculture, who in the course of study for their degrees have pursued studies in chemistry, physiology, anatomy, histology, bacteriology, or pathology, equivalent to the courses in these subjects in this college, may upon satisfactory evidence of their proficiency be credited with such studies. Provided, however, that such students shall devote two years' study in veterinary medicine, the last year of which is passed in this College.

SPECIAL STUDENTS

Students, approved by the Dean, not candidates for the degree of Doctor of Veterinary Medicine, may be admitted without examination to pursue any course they may elect. Such courses cannot, however, be subsequently considered as time spent in the course for the degree of Doctor of Veterinary Medicine. Nor can such students enter upon the regular veterinary course without complying with all the regular requirements for admission.

CLASSIFICATION OF STUDENTS

Students are divided into four classes, according to their proficiency and the time spent, viz., first, second, third and fourth year. Students cannot advance to a higher class with more than one major and one minor condition. Students failing in any subject or subjects may be permitted at the next examination period a re-examination in the subjects in which they fail. The Faculty may dismiss any student from the College, if in its judgment such student be deemed an unsuitable person, intellectually or otherwise, for the profession of veterinary medicine.

ORDER OF INSTRUCTION

The subjects studied in each year are shown in the following table:

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
Anatomy	Anatomy	Theory and Practice	Theory and Practice
Histology	Physiological		Small Animal
Embryology	Chemistry	Bacteriology	Practice
Chemistry and	Pharmacy	Pathology and	Surgery and Re-
Physics	Physiology	Laboratory Di-	straint
Laboratory Chem-	Hygiene	agnosis	Therapeutics
istry	Breeds and Breed-	Surgery and Re-	Obstetrics
Shoeing and Bal-	ing and Judging	straint	Veterinary Juris-
ancing	Dairy Inspection	Therapeutics	prudence
Materia Medica	and Milk Hy-	Dentistry	Control of Infect-
and Toxicology	giene	Parasitology	ive Diseases
Botany	Feeds and Feeding	Soundness and	Meat Inspection
Zoology	Clinics	Lameness and	and P. M. Ex-
		Clinics	amination
			Clinics

For lecture, laboratory and dissecting hours a schedule card is furnished.

Clinical work in the veterinary and canine hospitals connected with the College and at abattoirs and stock and dairy farms is required of second, third and fourth year students.

ANATOMY

JOHN M. BUCK, D.V.M.....Assistant Professor
TUNIS HICKS, D.V.M.....Instructor
JESSE KARL SMITH, D.V.M.....Instructor

The instruction in Anatomy is given in a series of lectures, demonstrations, recitations, and laboratory work, the latter being the most important.

The lectures are intended to present the general anatomical features of the horse and other domestic animals, and to point out the anatomical relations of the organs and parts of the body most subject to surgical operations.

The horse is used as the type subject in dissection, and every student is required to dissect all the parts of the horse, and such other of the domesticated animals, including the ox, sheep, swine, dog and cat, as may prove most expedient.

The laboratory is well supplied with all of the parts of the skeleton of the horse, and portions of the skeleton of various other domestic animals, for the work in osteology. Ample material is always available for the dissection of joints, muscles, viscera, and the vascular and nervous systems. The laboratory is also provided with a complete model of the horse, showing the relation of all the organs and parts of the body, for demonstrations in general and surgical anatomy. The course extends throughout the first and second years.

TEXT-BOOK: Sisson, Veterinary Anatomy.

HISTOLOGY AND EMBRYOLOGY

MATTHEW KOLLIG, A.B., M.D.....Professor
ELIJAH WHITE TITUS, M.D.....Instructor

These subjects are taught by a series of carefully correlated lectures, recitations, quizzes and demonstrations, and will include such instruction in microscopy as a working knowledge of the use of the simple and compound microscope and accessories, supplemented by the fundamental laws of optics; the method of preparing tissues for microscopic examination, and the technique of mounting.

Comparative histology will deal with the minute structure of the

tissues and organs of various animals, including man. In addition to the microscopical demonstrations, lantern demonstrations will also be given.

Embryology under this head will present the salient features of the anatomy and physiology of the fecundated ovule up to the time of birth.

TEXT-BOOK: Histology, Bohm, Davidoff & Huber.

PHYSIOLOGY

HULBERT YOUNG, V.M.D., Assistant Professor
SHEPHERD IVORY FRANZ, Ph.D., Lecturer on the Nervous System
and Special Senses

The course in Physiology consists of lectures, demonstrations and laboratory exercises. The lectures cover all the important facts and theories regarding bodily functions of the animal, and are illustrated by diagrams, models and prepared specimens.

In the laboratory each student performs a number of experiments on blood, on the circulation, on digestion, on the general functions of nerves and muscles, and on the special senses of animals.

Special emphasis is laid on the relation of normal physiological functions to the disturbances of function in disease and upon the physiological action of drugs.

It is intended in this way to bring the work of the Physiological Laboratory and other exercises into closer relation with the succeeding course in Pathology, Therapeutics and General Veterinary Medicine.

TEXT-BOOKS: Howell's Physiology, Smith's Veterinary Physiology.

GENERAL CHEMISTRY

(First Year)

CHARLES EDWARD MUNROE, Ph.D., LL.D., Professor
OTIS DOW SWETT, M.S., Assistant Professor

GENERAL CHEMISTRY.—A series of illustrated lectures, accompanied by recitations and exercises, on theoretical, inorganic, organic and technical Chemistry. The student is required to take notes on these lectures, which he must submit for examination. *Tuesdays, Thursdays, and Saturdays*, at 4.30. Professor MUNROE and Mr. SWETT.

LABORATORY PRACTICE.—A laboratory course for the study of the principles of chemistry which is designed to instruct students in the methods of conducting chemical experiments. Professor PRICE.

TEXT-BOOKS: Holland's Medical Chemistry and Toxicology.

PHYSIOLOGICAL CHEMISTRY

(Second Year.)

THOMAS MALCOLM PRICE, M.S., Ph.D.....Professor
 EDWIN HENRY INGERSOLL, B.S.....Assistant

This course will consist of lectures and laboratory instruction, and includes the study of water from a sanitary standpoint; the chemical examination of milk, the tissues and fluids of the body; the isolation of the digestive enzymes, and a study of their action in vitro.

MATERIA MEDICA AND THERAPEUTICS

DAVID EASTBURN BUCKINGHAM, V.M.D.....Professor
 HARRY A. LOCHBOEHLER, D.V.M.....Instructor

First year. (1) Lectures upon and demonstrations of drugs and their preparations and doses used in veterinary practice will be followed by recitations to assist in memorizing. (2) Practical exercises will be given in prescription writing, also a short course in Veterinary Pharmacology.

Third year. (1) Systematic lectures upon the physiological action of drugs and their effects in disease, their therapeutic uses, and their methods of administration to animals. (2) Prescription writing, in which students are given hypothetical cases for which to prescribe.

(3) The therapeutic application of various agencies not drugs.

TEXT-BOOK: Winslow's Veterinary Materia Medica and Therapeutics.

PRACTICE OF VETERINARY MEDICINE

JOHN POLLARD TURNER, V.M.D.....Professor
 WILLIAM HENRY O'HARA, D.V.M.....Instructor

This subject is taught by a series of lectures, recitations, quizzes and clinics extending over a period of two years.

The student is personally drilled in all the various diseases and doctrines taught in a well regulated veterinary school.

Especial attention is given to practical work whereby the student can become proficient in the diagnosis and treatment of disease.

Visits are required to the three veterinary hospitals in connection with the University, and personal attention is given students in visits to various large stables in and adjacent to the city of Washington, where practical instruction is given the third and fourth year classes in physical diagnosis among horses, cows and hogs.

Equal attention is given diseases of cattle as of horses, whereby the student is properly fitted for either city or country practice.

Diseases of food-producing animals will be thoroughly explained.

TEXT-BOOKS: Friedberger and Froehner's Pathology and Therapeutics of Domestic Animals; Special Pathology and Therapeutics of Domestic Animals. Hutyra and Marek; Malkmus' Clinical Diagnosis; Glass' translation of Muller's Diseases of the Dog.

VETERINARY SURGERY

JOHN LOCKWOOD, D.V.S.....Professor
CHAUNCEY MERLE GRUBB, D.V.M.....Instructor
JAMES WALTER NORRIS, D.V.M.....Instructor

The instruction given in this course embraces systematic lectures upon the principles and practice of Veterinary Surgery.

The different surgical operations are illustrated in clinic and upon the cadavar and the uses of all the important surgical instruments and appliances are demonstrated in the same manner. The use of anesthetics, the practice of dental surgery, and castration on all domestic animals will receive special attention.

TEXT-BOOKS: Moeller's Operative Veterinary Surgery; Fleming's Operative Veterinary Surgery; Hobday's Canine and Feline Surgery; Williams' Principles and Practice of Veterinary Surgery; Pfeiffer and Williams' Surgical Operations; White's Restraint of Domestic Animals

BACTERIOLOGY AND PATHOLOGY

FREDERICK FULLER RUSSELL, M.D.....Professor
RALPH MITCHELL LE COMPE, M.D.....Instructor

BACTERIOLOGY.—This subject comprises laboratory instruction in the fundamental principles and methods of pure bacteriology. Thorough drilling is given in the preparation of culture media, in disinfection, sterilization, staining and the general methods of bacterial differentiation. Following this course, which is given daily during October, the further study of bacteria is taken up in connection with and as applied to pathology.

Pathology comprises the laboratory study of the general and special phenomena of inflammation, and a detailed study of the pathological processes found in the various diseases. The relation of bacterial and other microphytic life to disease processes and results is studied coincidentally and constitutes a course in applied bacteriology. In connection with the laboratory work a course of lectures and demonstrations is given upon immunity, serum therapy and protective inoculation.

SURGICAL PATHOLOGY.—A special course in the healing of wounds and injuries and in the pathology of surgical operations is given in the third and fourth years.

CLINICAL MICROSCOPY.—Comprising the study of the various tissues, fluids, ejecta, and dejecta, with a view to diagnosis of diseased conditions, is given in the first part of the third year.

TEXT-BOOKS: Delafield and Prudden's Pathology, Hiss & Zinsser's Text-book on Bacteriology.

SPECIAL PATHOLOGY, TREATMENT AND CONTROL OF INFECTIOUS DISEASES

JACOB TRAUM, D.V.M., Assistant Professor

The lectures in this course will be given with reference to the etiology, pathogenesis, symptoms, diagnosis, treatment and prevention of the infectious diseases. Local and national regulations and measures governing the control and eradication of diseases, with particular reference to the work of the United States Government in the eradication of infectious diseases will be clearly explained.

TEXT-BOOKS: Special Pathology and Therapeutics of Domestic Animals, Hutyra & Marek, Volume I, translated by Mohler, Eichhorn & Fischer; Moore's The Pathology of Infectious Diseases of Animals; Veterinary Medicine, Volume IV, James Law, third revised edition.

ZOOTECHNICS AND PRINCIPLES OF FEEDING

RALPH J. CARR, B.S., Assistant Professor

The course covers the chief phases of live-stock work, including the judging, breeding, feeding and management of horses, cattle, sheep and swine.

It is introduced by discussions upon the origin of animal life, natural selections, the origin of breeds and the domestication of animals.

The principles of breeding, heredity, environment, selection, individual conformation, the history and development of breeds, principles of animal nutrition, balanced rations, practical feeding and the economic production of beef, milk, mutton and pork are given consideration.

Students obtain practical experience in the judging of the various breeds and classes of animals, by visits to neighboring farms.

TEXT-BOOKS: Plumb's Types and Breeds of Farm Animals; Henry's Feeds and Feeding; Goubaux and Barrier, Exterior of the Horse.

THE GEORGE WASHINGTON UNIVERSITY

MILK HYGIENE AND DAIRY INSPECTION

CHAUNCEY M. GRUBB, D.V.M. Lecturer

The course in Milk Hygiene will be given by lectures and demonstrations throughout the second year. The students will be taught the theory of milk secretion, the composition and characteristics of milk, the various methods of testing, together with the chemistry and bacteriology of milk, abnormal forms of milk, and diseases transmissible through milk to bovines and human beings, with a study of the epidemics produced. Sanitary stabling and the sanitary handling of milk will be considered, showing the construction of various types of dairy barns and dairy houses, the manner of milking, care of the milk and the varieties and care of dairy utensils. Also the study of sterilization and pasteurization.

TEXT-BOOK: Jensen's Milk Hygiene, translated by Pearson. Bulletin No. 56, Marine-Hospital Service, Milk and its relation to the Public Health.

MEAT INSPECTION AND POST-MORTEM EXAMINATION

JACOB TRAUM, D.V.M. Assistant Professor

The subject involves the control of food animals destined for slaughter; their ante-mortem and post-mortem inspection with reference to the diseases which affect the wholesomeness of the meat. Further, the preparation of meat-food products, the various methods of preservation of meat and the conditions to which the meat and meat products are subject due to the different infections and contaminations. The application of the Regulations of the Department of Agriculture in connection with the judgment of carcasses, meats and meat-food products.

Practical demonstrations in meat inspection and judgment will be given at the local abattoirs.

Post-mortem examinations and demonstrations of morbid anatomy will be given, as opportunities arise, in the various hospital and ambulatory clinics in and about Washington, D. C. Special consideration will be given to discussions of gross pathological changes, procedure of technic, preparation of pathological specimens for museum purposes and methods of securing and forwarding material for diagnosis. Students will be required to write complete protocols of each case.

TEXT-BOOK: Mehler and Eichhorn's translation of Edelmann's Meat Hygiene, second revised edition.

ZOOLOGY AND PARASITOLOGY

HARRY W. GRAYBILL, B.Sc., M.A., D.V.M. Professor

Zoology.—In this course a brief survey of the general principles of zoology is undertaken. The history of zoology, the classification of the animal kingdom, the structure of typical forms in the different Phyla and the distribution of animals on the face of the earth will be considered. The course is designed to familiarize the student with the main facts and theories of zoology.

Parasitology.—This course is designed to give the student a practical knowledge of animal parasites. The nature of parasitism, the classification of parasites and the structure and life histories of those parasites of importance from the standpoint of meat inspection and veterinary practice are considered. By the use of fresh and preserved materials the student is given a first-hand knowledge of the more important parasites. Due consideration is given to the diseases caused by animal parasites, their prophylaxis, treatment and eradication.

VETERINARY OBSTETRICS

HOLBERT YOUNG, V.M.D. Assistant Professor

The course of instruction will consist of lectures on obstetrical anatomy, foetal development, presentations and the diseases incidental to the periods of gestation and parturition.

The lectures will be illustrated by diagrams, models, natural preparations, and other appliances for demonstrating the principles taught.

TEXT-BOOK: Fleming, Dalrymple, Williams.

SHOEING AND BALANCING

JAMES WALTER NORRIS, D.V.M. Lecturer

The course is intended to familiarize students with the principles of shoeing, the examination of the feet and proper use of special shoes for relief of defects or disease.

TEXT-BOOK: Lungwitz on Horseshoeing, Adams' translation.

DENTISTRY

JAMES WALTER NORRIS, D.V.M. Lecturer

The course in dentistry includes lectures on the development of the teeth of the domesticated animals, the determination of age, irregularities of the teeth, oral surgery and dental clinics.

TEXT-BOOK: Merrilats, Animal Dentistry and Diseases of the Mouth.

BOTANY—PHARMACY

LOUIS BERNARD CASTELL, Phar.D., B.S., M.D.....Lecturer

The course in botany embraces the general relation of plants, vegetative organs, their functions, reproductive organs and nutrition.

Ecological factors, diversity of plant life, evolution of sex, differentiation of tissues, and plant physiology will be fully considered.

Pharmacy includes the history and nomenclature of the U. S. Pharmacopœia, metrology, metric system and common system of weights and measures. Principles employed in making various preparations, classification of official preparations, incompatibility.

Supplemented by laboratory work in which students are required to compound formulae of ointments, lotions, draughts and various preparations, official and extemporaneous.

MILITARY PRACTICE

HERBERT S. WILLIAMS, V.M.D.....Clinical Instructor in
Veterinary Military Practice
(U. S. Army, Fort Myer, Va.)

This course consists of lectures and demonstrations of purely military veterinary subjects, and is given at Fort Myer, Va., the cavalry and artillery post near Washington, D. C.

The subjects of saddling, biting and draft, together with the study of the proper conformation of animals used for military purposes, are included in this set of lectures.

The control of epizootics in military life is also given special consideration.

VETERINARY JURISPRUDENCE

WILLIAM W. BRIDE, A.M., LL.B.....Lecturer

A series of lectures upon the Law of Animals, including suggestions relating to the conduct of veterinarians as experts in the trial of cases involving the above law.

SPECIAL LECTURES

In addition to the foregoing courses of lectures, a number of Government experts have been engaged to give lectures on subjects of special interest to the veterinarian.

These men are specialists in their lines of scientific research, and this is the only school giving such a course.

EXAMINATIONS AND DEGREE

Examinations are held at the end of the course in each subject. Students failing in examinations will be permitted to be re-examined at the next regular examination period. Students will not be admitted to examination unless they have paid all fees due at the time or present a permit signed by the Dean. In order to avail themselves of the privilege of re-examination, students must file their written applications with the Dean not later than fifteen days before the date set for the examinations.

Proficiency is marked upon a scale of 100. A grade of 70 is required to pass an examination. Students who fail to appear at the regular examination period will be charged a fee of \$3.00 for a special examination in each subject.

If a satisfactory examination is passed, the student receives the Degree of Doctor of Veterinary Medicine (D.V.M.)

PRIZES

First—Gold medal for student attaining highest average for whole course.

Second—Prize for best work in operative surgery for senior student.

Third—Prize of surgical instrument for best anatomical specimen prepared by a Sophomore student.

Fourth—Prize of surgical instrument for best anatomical specimen prepared by a Freshman student.

In addition to the foregoing, students attaining a general average of 90 per cent or over for the entire course will be graduated "With Distinction," the same to be inscribed upon their diploma.

THE VETERINARY LIBRARY

This library is located in the Administration Building of the College of Veterinary Medicine, and is open from 8 A.M. to 10 P.M.

It contains, in addition to volumes on veterinary medical subjects, the current veterinary journals.

Provision is made in the annual library fee charged every student to add to it as published, the important new works on veterinary medicine.

OTHER LIBRARIES

Washington contains the Library of the Surgeon-General's Office of the United States Army, the most complete medical library in the

world. This library, as all other libraries of the Government, is open to the public between the hours of 9 A.M. and 4.30 P.M. There is also the Library of Congress and the many excellent libraries of the various other Government offices, in addition to the University Medical Library.

FEES AND CONTINGENT EXPENSES

1. Matriculation fee (payable only on first entry into the University)	\$5
2. Library fee per annum.....	2
3. Tuition fee per annum.....	100
4. Fee for graduation.....	10

A deposit of \$5 per annum is required of every student to cover loss, breakage or damage to the property of the school. The amount of such deposit paid in excess of the breakage will be returned.

No change will be made in the fees fixed at registration except in case of withdrawal, and then only upon notice in due form, and from the end of the current quarter-session, when such withdrawal shall be approved. Applications for the granting of a withdrawal should be made on the prescribed form to be obtained from the Registrar, and will be received only at the end of a quarter-session.

Students are urged to purchase their own microscopes, but those who do not care to do so may rent them from the University at the following rates:

Microscope for Histological Laboratory use.....	\$5
Microscope for Bacteriological, Pathological and Clinical Microscopy Laboratory use.....	6

PAYMENT OF FEES

All fees are to be paid to the clerk. Tuition fees are payable quarterly, in advance. Matriculation, library and laboratory fees are payable in full, in advance.

STUDENT EMPLOYMENT

The College of Veterinary Medicine will aid students, especially those coming from a distance, to obtain suitable employment as a means of defraying a part or all of their expenses while in pursuit of their college course. Opportunities for such employment in Washington are exceptionally good. The many Departments of Government, the Library of Congress, Congressmen's secretaryships, law offices, contractors' and architects' offices, journalism, stenography, etc., offer a large number of positions of the most diverse kinds. While the Col-

lege must not be understood as in any sense engaging to find employment for prospective students, in a great many cases important assistance can be rendered duly qualified applicants, if the fact of their desire to obtain employment is known. Applicants are particularly cautioned against coming to the University, intending to depend upon outside employment for support without being provided with funds sufficient to meet the expenses of at least the first half-year. Communications should be addressed to

THE DEAN

College of Veterinary Medicine
The George Washington University
2113-2115 Fourteenth St. N.W., Washington, D. C.

BOARD AND ROOMS

A register of approved boarding-houses is kept by the clerk. Accommodations cost from \$25 to \$40 a month.

For further information apply to

DAVID E. BUCKINGHAM, Dean

The George Washington University

College of Veterinary Medicine

Nos. 2113-2115 Fourteenth St. N.W.

Washington, D. C.

THE GEORGE WASHINGTON UNIVERSITY

LIST OF STUDENTS
College of Veterinary Medicine
1911-12
First Year

Name	State
Cashell, Irving M.....	Maryland
Chapin, Judson Kerfoot.....	Virginia
Cook, Parley Mere.....	Ohio
Crawford, Arthur Burdeck.....	Massachusetts
Colflesh, Joseph Harmon.....	Pennsylvania
Essex, John James.....	Maryland
Forbes, Samuel Dexter.....	Virginia
Gantz, Claudius R.....	District of Columbia
Getz, Harry Rohrer.....	Pennsylvania
Hayes, Jesse	New Jersey
Kelser, Raymond Alexander.....	District of Columbia
Miller, Howard Sydnor.....	Virginia
Munro, Joseph Briggs.....	Rhode Island
Reynolds, Francois Hue K.....	Wisconsin
Shillinger, Jacob Edward.....	Maryland
Trigg, William S.....	Virginia
Thigpen, Claude	Alabama
Whitney, Clifford Caswell.....	Massachusetts

1911-12
Second Year

Name	State
Behney, Jacob E.....	Pennsylvania
Gillette, George H.....	Kansas
Grenfell, Frederick Aloysius.....	District of Columbia
Hargett, Ernest George.....	North Carolina
Hooker, William Anson.....	Massachusetts
Lambert, Fred W.....	Maryland
McLaughlin, Edward Joseph.....	Illinois
Morcock, Julius Edward.....	Georgia
Nichol, James Buchanan.....	Virginia
Potteiger, Clarence B.....	Pennsylvania

1911-12
Third Year

Name	State
Ayers, A. T.....	West Virginia
Benjamin, Frank H.....	Maryland
Buchanan, J. Wesley.....	District of Columbia
Clayton, Harry Thomas.....	Missouri

COLLEGE OF VETERINARY MEDICINE

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Name	State
Earl, Warren Becker	New York
Hodge, Joseph Ernest	Tennessee
Fake, Charles Thompson	New York
Hicks, Greyden St. C.	Michigan
Holt, Campbell Lloyd	Texas
Lochboehler, Harry A.	Nebraska
McClure, Floyd I.	Pennsylvania
McClure, Fred K.	Pennsylvania
Maher, William Albert	Virginia
Marsh, Hadleigh	District of Columbia
Norris, James W.	Maryland
Perrin, Edwin R.	Michigan
Smith, Jesse K.	Arizona
Stahl, Benton Mehrling	District of Columbia
Lloveras, Carlos Sanchez	Argentina

GRADUATES

Name	State
Brett, George Wesley	Massachusetts
Cotton, William Edwin	Iowa
Dillard, William Edward	Virginia
Divine, John Parker	District of Columbia
Dunlavey, Robert Joseph	New York
Franz, Louis John	Wisconsin
Fry, William H.	District of Columbia
Graham, Charles R.	Pennsylvania
Graybill, Harry W., B.Sc., M.A.	Iowa
Grubb, Chauncey Merle	Maryland
Hicks, Tunis	Michigan
Hornbaker, Joseph Nourse	Virginia
Hugins, Frank Almon	Massachusetts
Humphrey, Charles William	Pennsylvania
Kernick, James, D.V.S.	Michigan
Koon, George Henry	Ohio
Kushner, Albert	Maryland
Lowry, William B.	District of Columbia
McCarthy, Henry Joseph	Maryland
McCray, Arthur Howard	Ohio
Miller, Ezra William	Virginia
Moore, Charles S.	Michigan
O'Hara, William Henry	Wisconsin
Riley, Edward Henry, B.Agr.	Oklahoma
Shore, Howard J.	North Carolina

Summary

CANDIDATES FOR THE DEGREE OF D.V.M.:

First year	18
Second year	10
Third year	18
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	46

GEOGRAPHICAL DISTRIBUTION

Alabama	7	Ohio	35
Arizona	2	Oklahoma	9
Arkansas	4	Oregon	2
California	8	Pennsylvania	72
Colorado	4	Rhode Island	4
Connecticut	11	South Carolina	9
Delaware	4	South Dakota	6
District of Columbia.....	490	Tennessee	12
Florida	3	Texas	15
Georgia	5	Utah	11
Idaho	2	Vermont	5
Illinois	32	Virginia	75
Indiana	16	Washington	11
Iowa	24	West Virginia	7
Kansas	14	Wisconsin	17
Kentucky	11		
Louisiana	3	Argentina	1
Maine	14	Asia Minor	1
Maryland	59	Austria	1
Massachusetts	41	Canada	3
Michigan	16	China	6
Minnesota	17	Cuba	1
Mississippi	6	Ecuador	1
Missouri	21	France	2
Montana	2	Germany	4
Nebraska	16	Philippine Islands	4
New Hampshire	7	Porto Rico	4
New Jersey	19	Russia	6
New Mexico	1	Turkey	1
New York	65		
North Carolina	17		
North Dakota	1		
			<hr/>
			1,270

COLLEGE OF VETERINARY MEDICINE

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GENERAL SUMMARY

TEACHING STAFF. (In many instances members of the Teaching Staff give only part time to the University):

Professors	65
Associate Professors	11
Assistant Professors	19
Associates, Lecturers, Instructors, Demonstrators and Assistants	91
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	186

STUDENTS REGISTERED IN THE UNIVERSITY, 1911-12

DEPARTMENT OF ARTS AND SCIENCES:

Faculty of Graduate Studies.....	76
Columbian College	335
College of Engineering and Mechanic Arts.....	153
College of the Political Sciences.....	91
Teachers' College	84
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	739
Duplicates	6
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	733

PROFESSIONAL DEPARTMENT:

Department of Law.....	306
Department of Medicine.....	92
Department of Dentistry.....	50
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	448

ASSOCIATED COLLEGES:

National College of Pharmacy.....	66
College of Veterinary Medicine.....	46
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	112

Total	1,293
Duplicates	23
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Total	1,270

The George Washington University
College of Veterinary Medicine

DEPARTMENT OF ARTS AND SCIENCES

FACULTY OF GRADUATE STUDIES
COLUMBIAN COLLEGE
WASHINGTON COLLEGE OF ENGINEERING
DIVISION OF ARCHITECTURE
COLLEGE OF THE POLITICAL SCIENCES
DIVISION OF EDUCATION

FACULTY OF MEDICINE

DEPARTMENT OF MEDICINE
DEPARTMENT OF DENTISTRY

DEPARTMENT OF LAW

NATIONAL COLLEGE OF PHARMACY

